TM 11-6625-200-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATION AND ORGANIZATIONAL MAINTENANCE MULTIMETER ME-26B/U

HEADQUARTERS, DEPARTMENT OF THE ARMY
FEBRUARY 1959

WARNING

HIGH VOLTAGE

is used in the operation of

this equipment

DEATH ON CONTACT

may result if operating personnel
fail to observe safety precautions.

Be careful when measuring voltages in excess of 200 volts. Physical contact with such voltages may result in serious injury or death. To ensure safety, turn off the equipment which is being checked before either attaching or removing the test probe at the point of measurement.

DON'T TAKE CHANCES!

TM 11-6625-200-12
*C7

Operator and Organizational Maintenance Manual

MULTIMETERS ME-26A/U, ME-26B/U, AND ME-26C/U

CHANGE No. 7

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., *May 1964*

TM 11-6625-200-12, 13 February 1959, is changed as follows:

Note. The parenthetical reference to previous changes (example: "page 1 of C 2), indicates that pertinent material was published in that change.

The title is changed as shown above.

Page 2 (page 1 of C 2). Delete the "*Note*" below the title of chapter 1 and substitute:

Note. Multimeters ME-26A/U and ME-26C/U are similar to Multimeter ME-26B/U. Information in this manual applies to all three equipments unless otherwise specified.

Paragraph 1 (page 1 of C 2). Delete subparagraph *b* and substitute:

b. Throughout this manual, Multimeters ME-26A/U, ME-26B/U, and ME-26C/U are referred to as multimeter.

Page 2, paragraph 2 (as changed by C 6, 12 Sep 63).

Delete and substitute:

2. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment. Use equipment forms and records in accordance with instructions in TM 38-750.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700-58 (Army), NAVSANDA Publication 378 (Navy), and AFR 71-4 (Air Force).

c. Reporting of Equipment Manual Improvements. The direct reporting of errors, omissions, and recommendations for improving this manual by the individual user is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Technical Manual Parts Lists or Supply Manual 7, 8, or 9) will be used for reporting these improvements. This form will be completed in triplicate using pencil, pen, or typewriter. The original and one copy will be forwarded direct to Commanding Officer, U.S. Army Electronics Materiel Support Agency, ATTN: SELMS-MP, Fort Monmouth, N. J. 07703. One information copy will be furnished to the individual's immediate supervisor (officer, noncommissioned officer, supervisor, etc).

Page 3, paragraph 4 (as changed by C 6, 12 Sep 63). Opposite "frequency response (AC probe)," delete "Flat within ±1 db from 20 cps to 700 mc" and substitute:

ME-26A/U is flat within ±1 db from 20 cps to 700 mc. ME-26B/U and ME-26C/U are flat within ±1 db from 20 cps to 300 mc, and ±3 db from 20 cps to 700 mc.

* This change supersedes C 6, 12 September 1963.

Page 3, figure 1, caption. After "ME-26B/U" add. and ME-26C/U.

Page 4, paragraph 5 (page 1 of C 2). Delete paragraph 5 and substitute:

5. Components

Multimeters ME-26A/U, ME-26B/U, and ME-26C/U are self-contained units. Running spares are listed in the following chart:

Quantity	Item
1	Electron tube OB2 WA.
1	Electron tube 6x4 WA.
5	Cartridge fuse (for 115-volt ac operation). 1.5 amperes for ME-26B/U and ME-26C/U. 0.6 ampere for ME-26A/U.
5	Cartridge fuse (for 230-volt ac operation). 0.75 ampere for ME-26B/U and ME-26C/U. 0.25 ampere for ME-26A/U.
2	Lamp # 47.

Paragraph 6, lines 8 and 10 (page 1 of C 2). After "ME-26B/U" add: and ME-26C/U.

Paragraph 6.1 (page 1 of C 2). Delete in its entirety and substitute:

6.1. Differences in Models

Multimeters ME-26A/U, ME-26B/U, and ME-26C/U are similar in purpose and operational features. External differences are listed below—

Item	ME-26A/U	ME-26B/U	ME-26C/U
Dimensions	12 x 7⅜ x 8	11 x 7⅛ x 7¼	11 x 7 x 7½
Weight	11¼ lb	11½ lb	11½ lb
Switch (ON-OFF) and function selector.	SELECTOR	FUNCTION	FUNCTION
Test leads	Connected to a detachable connector, brought out through the bottom of the chassis.	Permanently attached, brought out through front of panel.	Permanently attached, brought out through front of panel.

Page 5, paragraph 9 (page 1 of C 2), heading and first sentence. After "ME-26B/U" add: and ME-26C/U.

Page 9, figure 5, caption. After "ME-26B/U" add: and ME-26C/U.

Page 20, appendix I (as added by C 6, 12 September 1963).

Delete and substitute:

APPENDIX I

REFERENCES

Pam 310-4 Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 4, 6, 7, 8, and 9), Supply Bulletins, Lubrication Orders, and Modification Work Orders.

TM 9-213 Painting Instructions for Field Use.

TM 38-750 Army Equipment Record Procedures.

Page 21 (as added by C 6, 12 September,1963). Delete appendix II and substitute:

APPENDIX II

MAINTENANCE ALLOCATION

Section 1. INTRODUCTION

1. General

a. This appendix assigns maintenance functions to be performed on components, assemblies, and subassemblies by the lowest appropriate maintenance echelon.

b. Columns in the maintenance allocation chart are as follows:

(1) *Part or component.* This column shows only the nomenclature or standard item name. Additional descriptive data is included only where clarification is necessary to identify the component. Components, assemblies, and subassemblies are listed in top-down order. That is, the assemblies which are part of a component are listed immediately below that component, and the subassemblies which are part of an assembly are listed immediately below that assembly. Each generation breakdown (components, assemblies, or subassemblies) is listed in disassembly order or alphabetical order.

(2) *Maintenance function.* This column indicates the various maintenance functions allocated to the echelons.

(*a*) *Service.* To clean, to preserve, and to replenish lubricants.

(*b*) *Adjust.* To regulate periodically to prevent malfunction.

(*c*) *Inspect.* To verify serviceability and to detect incipient electrical or mechanical failure by scrutiny.

(*d*) *Test.* To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages, meters, etc.

(*e*) *Replace.* To substitute serviceable components, assemblies, or subassemblies, for unserviceable components, assemblies, or subassemblies.

(*f*) *Repair.* To restore an item to serviceable condition. This function includes but is not limited to welding, grinding, riveting, straightening, and replacement of parts other than the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes.

(*g*) *Align.* To adjust two or more components of an electrical system so that their functions are properly synchronized.

(*h*) *Calibrate.* To determine, check, rectify the graduation of an instrument, weapon, or weapons system, or components of a weapons system.

(*i*) *Overhaul.* To restore an item to *completely serviceable* condition as prescribed by serviceability standards developed and published by heads of technical services. This is accomplished through employment of the technique of "inspect and Repair Only as Necessary" (IROAN). Maximum utilization of diagnostic and test equipment is combined with minimum disassembly of the item during the overhaul process.

(*j*) *Rebuild.* To restore an item to a standard as near as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished through the maintenance tech-

nique of complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements using original manufacturing tolerances and/or specifications and subsequent reassembly of the item.

(3) *1st, 2d, 3d, 4th, 5th echelons.* The symbol X indicates the echelon responsible for performing that particular maintenance operation, but does not necessarily indicate that repair parts will be stocked at that level. Echelons higher than those marked by X are authorized to perform the indicated operation.

(4) *Tools required.* This column indicates codes assigned to each individual tool equipment, test equipment, and maintenance equipment referenced. The grouping of codes in this column of the maintenance allocation chart indicates the tool, test, and maintenance equipment required to perform the maintenance function.

(5) *Remarks.* Entries in this column will be utilized when necessary to clarify any of the data cited in the preceding column.

c. Columns in the allocation of tools for maintenance functions are as follows:

(1) *Tools required for maintenance functions.* This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

(2) *1st, 2d, 3d, 4th, 5th echelon.* The dagger (†) symbol indicates the echelons normally allocated the facility.

(3) *Tool code.* This column lists the tool code assigned.

2. Maintenance by Using Organizations

When this equipment is used by signal services organizations organic to theater headquarters or communications zones to provide theater communications, those maintenance functions allocated up to and including fourth echelon are authorized to the organization operating this equipment.

SECTION II. MAINTENANCE ALLOCATION CHART

PART OR COMPONENT	MAINTENANCE FUNCTION	ECHELON 1	2	3	4	5	TOOLS REQUIRED	REMARKS
MULTIMETER ME-26A/U, ME-26B/U, ME-26C/U	service	X						
	adjust				X		6	
	inspect	X						
	test		X				7	Continuity of Circuitry.
					X		1,2,3,5	
	repair		X				7	Easily replaced parts.
					X			
	calibrate				X		1,3	
	overhaul					X	1,2,3,4,6,7	
CABLES	repair		X				7	

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SECTION III. ALLOCATION OF TOOLS FOR MAINTENANCE FUNCTIONS

TOOLS REQUIRED FOR MAINTENANCE FUNCTIONS	ECHELON 1	2	3	4	5	TOOL CODE	REMARKS
ME-26A,B,C/U (continued)							
METER TEST SET TS-682/GSM-1				†	†	1	
MULTIMETER TS-352/U				†	†	2	
RESISTOR, DECADE ZM-16/U				†	†	3	
TEST SET, ELECTRON TUBE TV-2/U					†	4	
TEST SET, ELECTRON TUBE TV-7/U				†		5	
TOOL EQUIPMENT TK-21/G				†	†	6	
TOOLS & TEST EQUIPMENT AUTHORIZED ORGANIZATIONAL REPAIRMAN BY VIRTUE OF HIS ASSIGNED MISSION		†				7	

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Page 25 (as changed by C 6, 12 Sep, 63).Delete appendix III and substitute:

APPENDIX III

BASIC ISSUE ITEMS LIST

Section I. INTRODUCTION

1. General

a. This appendix lists items supplied for initial operation and for running spares. The list includes tools, parts, and material issued as part of the major end item. The list includes all items authorized for basic operator maintenance of the equipment. End items of equipment are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

2. Columns

Columns are as follows:

a. Federal Stock Number. This column lists the 11-digit Federal stock number.

b. Designation by Model. The dagger (†) indicates model in which the part is used.

c. Description. Nomenclature or the standard item name and brief identifying data for each item are listed in this column. When requisitioning, enter the nomenclature and description.

d. Unit of Issue. The unit of issue is each unless otherwise indicated and is the supply term by which the individual item is counted for procurement, storage, requisitioning, allowances and issue purposes.

e. Expendability. Nonexpendable items are indicated by NX. Expendable items are not annotated.

f. Quantity Authorized. Under "Item Comprising an Operable Equipment," the column lists the quantity of items supplied for the initial operation of the equipment. Under "Running Spare Items" the quantities listed are those issued initially with the equipment as spare parts. The quantities are authorized to be kept on hand by the operator for maintenance of the equipment.

g. Illustration. The item No. column lists the reference symbols used for identification of the items in the illustration or text of the manual.

SECTION: II. FUNCTIONAL PARTS LIST

FEDERAL STOCK NUMBER	DESIGNATION BY MODEL							DESCRIPTION	UNIT OF ISSUE	EXP	QTY AUTH	ILLUSTRATION	
												FIGURE NO.	ITEM NO.
6625-578-5780								MULTIMETER METER ME-26A/U: electronic type 0 to 300 v ac in 6 ranges, 0 to 1000 v dc in 7 ranges, 0.2 ohm to 500 megohm in 7 ranges, ±3% accuracy of full scale; 1 milliamp sensitivity; impedance data, 122 megohms on ac range, 122 megohms on dc range; operating power					
								requirements, ac 115/230 v, 50/60 cyc, single phase, 40 watts; portable, o/a dimen; 7-5/16 in. lg X 8 in. deep X 11-1/2 in. high; special features 4 probes mtd on removeable terminal block.					
6625-646-9409								MULTIMETER ME-26B/U; ME-26C/U: electronic type; 0 to 300 v ac in 6 ranges, 0 to 1000 v dc in 7 ranges, 0.2 ohm to 500 megohm in 7 ranges; 3% accuracy on AC & DC ranges, 1 ma sensitivity, input impedance data: 122 megohms on dc v range, 10 megohms on ac v range					
								below 100 kc; oper. power ac 115/230 v, 60 cps single ph; o/a dim.: 7-1/8 in. lg X 7 in. wd X 11 in. h.					
								NOTE: Model Column 1 refers to ME-26A/U; Column 2 refers to ME-26B/U; Column 3 refers to ME-26C/U.					
								ITEMS COMPRISING AN OPERABLE EQUIPMENT					
ORD THRU AGC	†	†	†					TECHNICAL MANUAL TM 11-6625-200-12			2		
	†							MULTIMETER METER ME-26A/U (Basic Component)	ea	NX	1		
		†						MULTIMETER ME-26B/U (Basic Component)	ea	NX	1		
			†					MULTIMETER ME-26C/U (Basic Component)	ea	NX	1		
6625-751-9387	†							PROBE ASSEMBLY: c/o AC probe, common lead assy, DC probe, and ohms probe; Hewlett-Packard part No. 410B-21-95A (Installed in equip)			1		
								RUNNING SPARE ITEMS					
5960-262-3763	†	†	†					ELECTRON TUBE: JAN type OB2WA			1		V4
5960-272-9182	†	†	†					ELECTRON TUBE: JAN type 6X4WA			1		V5
5920-050-4953		†	†					FUSE, CARTRIDGE: MIL type FO2G1R50A			5		F1
5920-284-9494		†	†					FUSE, CARTRIDGE: MIL type FO2GR750A			5		
5920-227-9142	†							FUSE, CARTRIDGE: 1/4 amp, 230 V slo-blo; Littelfuse No. 313.250			5		F1
5920-280-3173	†							FUSE, CARTRIDGE: 0.60 amp, 125 v slo-blo; Littelfuse No. 313.600			5		F1
6240-155-8706	†	†	†					LAMP, INCANDESCENT: 6-8 volt 0.15 amp, miniature bayonet base; G E type 47			2		DS1A

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NG: State AG (3); units—same as active Army except allowance is one copy.

USAR: None.

For explanation of abbreviations used, see AR 320-50.

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TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL MULTIMETERS ME-26A/U AND ME-26B/U

TM 11-6625-200-12
CHANGES No. 5

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., *24 January 1963*

TM 11-6625-200-12, 13 February 1959, is changed as follows:

Page 2. Add paragraph 1.1 after paragraph 1:

1.1. Index of Publications

Refer to the latest issue of DA PAM 310-4 to determine whether there are new editions, changes, or additional publications pertaining to your equipment. Department of the Army Pamphlet No. 310-4 is a current index of Technical Manuals, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders that are available through publications supply channels. The index lists the individual parts (-10, -20, -35P), etc.) and the latest changes and revisions of each equipment publication.

Delete paragraph 2 and substitute:

2. Forms and Records

a. Report of Unsatisfactory Equipments. Fill out DA Form 2407 (Maintenance Request) in accordance with instructions in TM 38-750 and forward it to: Commanding Officer, U. S. Army Electronics Materiel Support Agency, ATTN: SELMS-PIE, Fort Monmouth, N.J. The form should be filled out and forwarded to report:

(1) Receipt of defective equipment (use DD Form 6 (*b* below) if defect is due to damaged or improper shipment).
(2) Equipment deficiencies (deadlined equipments).
(3) Equipment shortcomings (operable, but as less than rated capability or efficiency).
(4) Equipment improvement suggestions and recommendations.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment), as prescribed in AR 700-58 (Army), NAVSANDA Publications 378, and AFR 71-4 (Air Force).

c. Comments on Manual. Forward all comments on this publication direct to: Commanding Officer, U. S. Army Electronics Materiel Support Agency, ATTN: SELMS-MP, Fort Monmouth, N.J. (DA Form 1598 (Record of Comments on Publications), DA Form 2496 (Disposition Form), or letter may be used.)

Page 14. Delete paragraphs 20 through 23 and substitute:

Section I. OPERATOR'S MAINTENANCE

20. Scope of Operator's Maintenance

The maintenance duties assigned to the operator of the multimeter are listed below together with a reference to the paragraphs covering the specific maintenance function. The duties assigned do not require tools or test equipment other than those issued with the multimeter.

a. Preventive maintenance (par. 21).
b. Daily maintenance service and inspection (par. 22).
c. Cleaning (par. 23).

21. Preventive Maintenance

Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent the occurrence of trouble, to reduce *downtime*, and to assure that the equipment is serviceable.

a. Systematic Care. The procedures given in paragraph 22 cover systematic care essential to proper upkeep and operation of the equipment when it is used daily. If the equipment is not used daily, however, the cleaning operations (par. 23) must be performed before operation, after any

extended shutdown, or once a week while the equipment is kept in *standby* condition. The other items must be checked before the equipment is placed in operation, or after it is turned off, as specified in the applicable paragraph.

b. Maintenance Service and Inspection. The maintenance service and inspection chart (par. 22) outlines inspections to be made at a specific interval. These inspections are made to determine combat serviceability; that is, to determine that the equipment is in good general (physical condition, in good operating condition, and likely to remain combat serviceable. To assist operators in determining and maintaining combat serviceability, the charts indicate what to inspect, how to inspect, and what the normal conditions are; the reference column lists the paragraph that contains additional information. If the defect cannot be remedied by the operator, higher echelon maintenance or repair is required. Records and reports of these inspections must be made in accordance with TM 38–750.

22. Daily Maintenance Service and Inspection Chart

Item No.	Procedure		References
	Item	Normal condition or result	
1	MULTIMETER: Inspect the multimeter for:		
	a. Completeness	*a.* Multimeter must be complete	*a.* App. II.
	b. Proper installation	*b.* Multimeter is properly installed	*b.* Par. 9.
	c. Cleanliness	*c.* Multimeter must be clean and dry, free from grease, dirt, rust, corrosion, and fungus.	*c.* Par. 23.
	d. Preservation	*d.* Painted surfaces must be free from bare spots, rust, and corrosion.	*d.* Par. 23.5.
4	SWITCHES AND CONTROLS: Check for proper operation of all front-panel switches and controls.	All switches and controls should be tight. Controls should not bind or scrape.	
5	CORDS AND CABLES: Check cords and cables for breaks, cuts, and fraying.	All cords and cables should be free from cuts and breaks.	
6	PANEL METER: Check for broken glass or damaged meter movement.	Panel meter should be clean, and glass should not be broken.	
7	FUSE: Check for proper value	The fuse in use should be rated for the mode of operation.	Par. 9 and 25.
8	PILOT LAMP: Check pilot lamp for proper seating.	Pilot lamp should be tight in its holder	Par. 24.

23. Cleaning

Inspect the exterior of the multimeter. The exterior surfaces should be clean, free from dust, dirt, grease, and fungus.

a. Remove dust and loose dirt with a clean soft cloth.

***Warning:* Cleaning compound is flammable and and its fumes are toxic. Provide adequate ventilation. *Do not* use near a flame.**

b. Remove grease, fungus, and ground-in dirt from the case; use a cloth dampened (not wet) with cleaning compound.

***Caution:* Do not press on the meter face (glass) when cleaning; the meter may become damaged.**

c. Clean the front panel and control knobs; use a soft cloth. If the dirt is difficult to remove, dampen the cloth with water; mild soap may be used to make the cleaning more effective.

Section II. ORGANIZATIONAL MAINTENANCE

23.1. Scope of Organizational Maintenance

Organizational maintenance of the multimeter consists of the following:

a. Unit repairman's preventive maintenance (par. 23.2).

b. Monthly maintenance service and inspection (pars. 23.3 and 23.4).

c. Cleaning and touchup painting instructions (par. 23.5).

d. Replacement of pilot lamp (par. 24).

e. Replacement of fuse (par. 25).

f. Replacement of rectifier tube or regulator tube (par. 26).

23.2. Unit Repairman's Preventive Maintenance

a. Preventive maintenance is the systematic care, inspection, and servicing of equipment to maintain it in serviceable condition, prevent breakdowns, and assure maximum operation capability. Preventive maintenance is the responsibility of all echelons concerned with the equipment and includes the inspection, testing, and repair or replacement of parts, subassemblies, or units that inspection and tests indicate would probably fail before the next scheduled service. Preventive maintenance service and inspections of the multimeter at the second echelon level are made at monthly intervals unless otherwise directed by the commanding officer. The maintenance service should be scheduled concurrently with the periodic service schedule of the carrying vehicle for all vehicular installations.

b. Maintenance forms and records to be used and maintained on this equipment are specified in TM 38–750. Paragraph 2 contains additional information concerning submission of specific forms.

23.3. Monthly Maintenance

Monthly maintenance of the multimeter will be scheduled in accordance with the requirements of TM 38–750. If the equipment is part of a vehicular installation, the monthly maintenance should be scheduled concurrently with the periodic service schedule for the carrying vehicle to reduce out-of-service time to a minimum. All deficiencies or shortcomings will be recorded, and those not corrected during the inspection and service will be immediately reported to higher echelon; use forms and procedures specified in TM 38–750. Equipment that has a deficiency that cannot be corrected by second echelon should be deadlined in accordance with TM 38–750. Perform all the services listed in the monthly maintenance and inspection chart (par. 23.4) in the sequence listed. Whenever a *normal condition or result* is not observed, take corrective action in accordance with the paragraph listed under *references*.

23.4. Monthly Maintenance Service and Inspection Chart

Item No.	Procedure		References
	Item	Normal condition or result	
1	MULTIMETER: Inspect the multimeter for:		
	a. Completeness	*a.* Multimeter must be complete	*a.* App. II.
	b. Proper installation	*b.* Multimeter is properly installed	*b.* Par. 9.
	c. Cleanliness	*c.* Multimeter must be clean and dry; free from grease, dirt, rust, corrosion, and fungus.	*c.* Par. 23.
	d. Preservation	*d.* Painted surfaces must be free from bare spots, rust, and corrosion.	*d.* Par. 23.5.
2	PUBLICATIONS: Check to see that pertinent publications are available.	*a.* Manual must be complete and in usable condition without missing pages.	*a.* Par. 1.1.
		b. All Changes pertinent to the equipment are on hand.	*b.* DA Pam 310–4.
3	MODIFICATION WORK ORDERS: Check DA Pam 310–4 to determine if new applicable MWO's have been published.	All urgent MWO's have been applied to the equipment. All ROUTINE MWO's have been scheduled.	DA Pam 310–4.
4	SWITCHES, AND CONTROLS: Check for proper operation of all front-panel switches and controls.	All switches and controls should be tight. Controls should not bind or scrape.	
5	CORDS AND CABLES: Check cords and cables for breaks, cuts, and fraying.	All cords and cables should be free from cuts and breaks.	
6	PANEL METER: Check for broken glass and damaged meter movement.	Panel meter should be clean and glass should not be broken.	
7	FUSE: Check fuse for proper value	The fuse in use should be rated for the mode of operation.	Par. 9 and 25.
8	PILOT LAMP: Check pilot lamp for proper seating.	Pilot lamp should be tight in its holder	Par. 24.

23.4. Monthly Maintenance Service and Inspection Chart—Continued

Item No.	Procedure		References
	Item	Normal condition or result	
9	START: Connect the multimeter to the power source. Set the FUNCTION switch to the minus (−) position. Allow 5 minutes for warmup.	The pilot lamp should light	Par. 24 and 25.
10	DC ZERO ADJUSTMENT: Set the RANGE switch to the 1V position. Connect the COMMON clip to the tip of the DC probe. Adjust the ZERO ADJ control to position the meter pointer to zero.	The panel meter should indicate zero	Par. 26.
11	DC VOLTAGE MEASUREMENT: Set the FUNCTION switch to the plus (+) position and the RANGE switch to a position for measurement of a known voltage. Measure the known dc voltage.	The panel meter should indicate the known voltage.	Pars. 25 and 26.
12	AC ZERO ADJUSTMENT: Set the FUNCTION switch to the AC position. Set the RANGE switch to the 300V position. Connect the ground clip to the AC probe. Adjust the AC ZERO control to position the meter pointer on zero.	The panel meter should indicate zero	Pars. 25 and 26.
13	AC VOLTAGE MEASUREMENT: Measure a known ac line voltage.	The panel meter should indicate the known line voltage.	Pars. 25 and 26.
14	OHMS ADJUSTMENT: Set the FUNCTION switch to the OHMS position. Set the RANGE switch to the RX1 position. Adjust the OHMS ADJ control to position the meter pointer to (∞).	The panel meter should indicate (∞)	Pars. 25 and 26.
15	OHMS ZERO ADJUSTMENT: Connect the COMMON clip to the tip of the OHMS probe. Adjust the ZERO ADJ control to position the meter pointer to zero.	The panel meter should indicate zero.	
16	MEASUREMENT OF RESISTANCE: Measure a known value of resistance.	The panel meter should indicate the known value of resistance.	

23.5. Cleaning and Touchup Painting Instructions

Warning: **Cleaning Compound is flammable and and its fumes are toxic. Do not use near a flame; provide adequate ventilation.**

a. Use a clean cloth to remove dust, dirt, moisture, and grease from the front panel and case. If necessary, wet the cloth with cleaning compound (Federal stock No. 7930–395–9542) and then wipe the parts with a clean dry cloth.

b. Clean rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint on the bare metal to protect it from further corrosion. Refer to applicable cleaning and refinishing practices specified in TM 9–213, Painting Instructions for Field Use.

Page 15 and 16. Delete figure 7 and 8.

By Order of the Secretary of the Army:

EARLE G. WHEELER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

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7	11–500 (AA–AE) (4)
11–5	11–557
11–6	11–587
11–7	11–592
11–16	11–597
11–55	17
11–56	29–1
11–57	29–21
11–97	29–25
11–98	29–26
11–117	29–35
11–155	29–36
11–157	37

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USAR: None.
For explanation of abbreviations used see AR 320–50.

U. S. GOVERNMENT PRINTING OFFICE: 1963—[illegible]
801–599

TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL MULTIMETERS ME-26A/U AND ME-26B/U

TM 11-6625-200-12
CHANGES No. 2

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., *13 November 1961*

TM 11-6625-200-12, 13 February 1959, is changed as indicated so that the manual also applies to Multimeter ME-26A/U.

Change the title of the manual to read as above.

Add "(SELECTOR switch on ME-26A/U)" after "FUNCTION switch" in the following places:

Paragraph 12*a*(1), line 1.
Paragraph 12*b*(1), line 1.
Paragraph 13*b*(1), line 1.
Paragraph 13*e*, line 4.
Paragraph 14*a*(2), line 1.
Paragraph 18*b*, line 1.
Paragraph 19*a*, line 1.

Page 2. Add the following "Note" below the title of chapter 1.

Note. Multimeter ME-26A/U is similar to Multimeter ME-26B/U. Information in this manual applies to both instruments unless otherwise specified.

Paragraph 1. Delete subparagraph *b* and substitute:

b. Throughout this manual, Multimeters ME-26A/U and ME-26B/U are referred to as **Multimeter.**

Paragraph 3, heading. Change "(fig. 1)" to: (figs. 1 and 1.1).

Page 4, paragraph 5. Make the following changes:

Line 1. Change "The multimeter" to: Multimeter ME-26B/U.

Line 4. Add after second sentence: Multimeter ME-26A/U (fig. 1.1) is a self-contained unit. Its dimensions are 12 inches high by 7⅜ inches wide by 8 inches deep, and it weighs 11¼ pounds.

Delete paragraph 6 and substitute new paragraph 6:

6. Description

The multimeter (figs. 1 and 1.1) consists of a chassis (figs. 4, 4.1, 9, and 9.1) contained in a metal case. All operating controls (figs. 5 and 5.1), the meter, and the pilot lamp are mounted on the front panel. The test leads on the ME-26A/U are mounted on a detachable connector and are attached on the underside of the multimeter. The test leads on the ME-26B/U are permanently attached to the chassis and extend through the front panel. The power cable on the ME-26B/U is contained in a storage compartment in the case. A rear cover is provided for access to the power cable, fuse, and storage compartment. The power cable and fuse are accessible on the back of the ME-26A/U.

Add paragraph 6.1 after paragraph 6:

6.1. Differences in Models

Multimeters ME-26A/U and ME-26B/U are similar in purpose and operational features. External differences are listed below:

Item	ME-26A/U	ME-26B/U
Dimensions	12 x 7⅜ x 8	11 x 7⅛ x 7¼.
Weight	11¼ lb	11½ lb.
Switch (On-OFF and function selector).	SELECTOR	FUNCTION.
Test leads	Connected to a detachable connector, brought out through the bottom of the chassis.	Permanently attached, brought out through front of panel.

Page 5, paragraph 9. Make the following changes:

Delete the heading and substitute: Installation of Multimeter ME-26B/U. In the first sentence, change "the multimeter" to: Multimeter ME-26B/U.

Add paragraph 9.1 after paragraph 9.

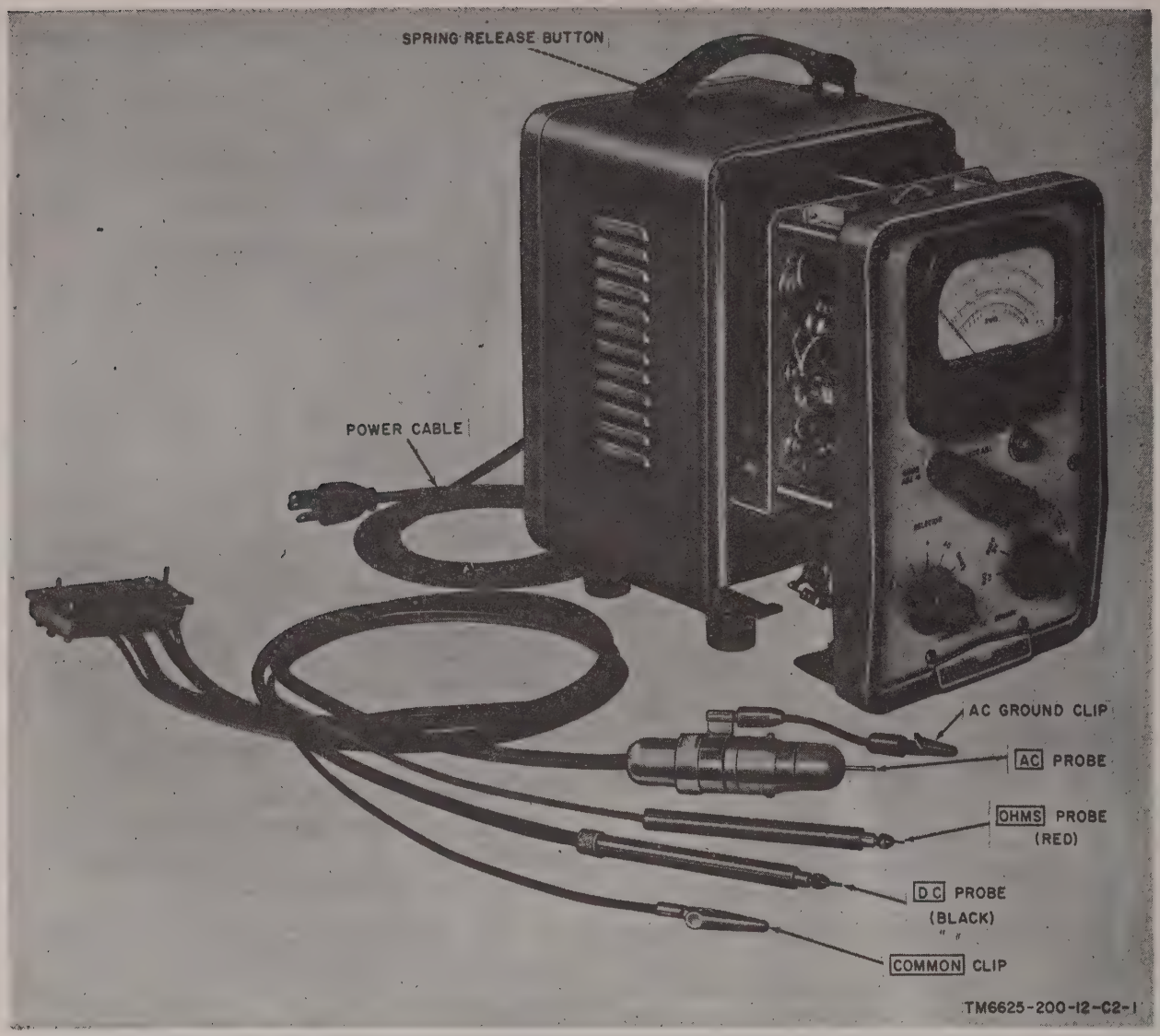

Figure 1.1. (Added) *Multimeter ME–26A/U, withdrawn from cabinet, less running spares.*

9.1. Installation of Multimeter ME–26A/U

Note. The multimeter is normally wired for operation from a 115-volt ac power source.

To operate the Multimeter ME–26A/U from a 230-volt ac power source, follow the procedures in *a* below. To reconnect the ME–26A/U for operation from a 115-volt ac power source, follow the procedures in *b* below.

a. Connection for 230-Volt Operation.

(1) Remove the rear cover by pressing the spring-release button on the top rear of the cabinet.

(2) Remove the retaining screws that hold the main chassis to the cabinet.

(3) Remove the chassis by gently sliding it forward out of the cabinet.

(4) Remove the leads that connect terminals 1 to 2, and 4 to 5 of terminal board TB3 (fig. 4.1).

(5) Connect terminals 2 and 4 together.

(6) Replace the 1.5-ampere fuse with a ¾-ampere fuse (fig. 9.1).

(7) Slide the chassis back into the case and replace the retaining screws.

b. Connection for 115-Volt Operation.

(1) Perform the procedures given in *a*(1) through (3) above.

(2) Remove the lead that connects terminal 2 to terminal 4 on terminal board TB3 (fig. 4.1).

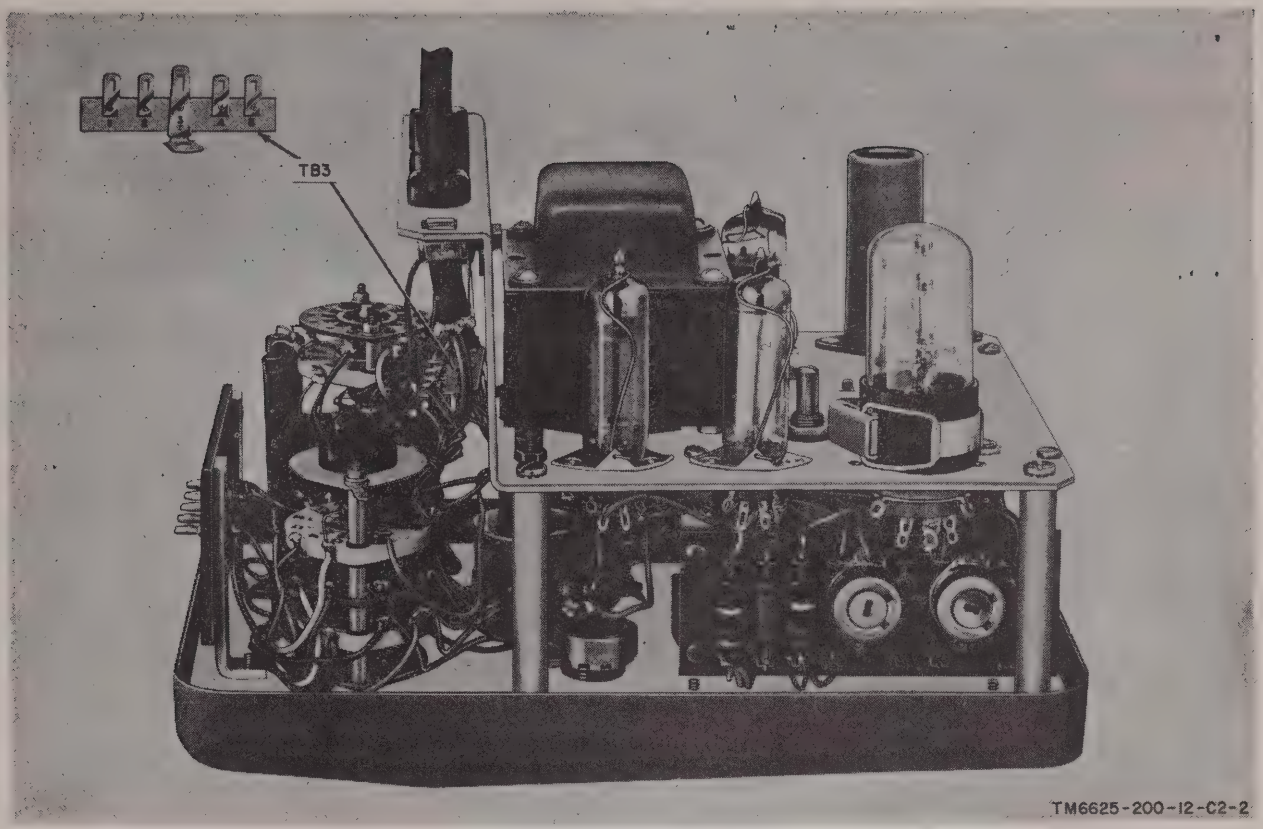

Figure 4.1. (Added) *Multimeter ME–26A/U chassis, side view, showing location of terminal board TB3.*

(3) Connect terminal 1 to 2 and terminal 4 to 5.

(4) Replace the ¾-ampere fuse with a 1.5-ampere fuse (fig. 9.1).

(5) Slide the chassis back into the case and replace the retaining screws.

c. Connection and Disconnection of Detachable Connector With Test Leads on ME–26A/U.

(1) To disconnect test leads from the multimeter chassis, remove the two connector retaining screws located on the bottom of the chassis.

(2) To reconnect the test leads to the multimeter chassis, turn the multimeter on its side and replace the connector with the test leads facing the front of the chassis. Secure the two retaining screws on either side of the test lead connector.

Page 8 Figure 4, Change the caption to: Multimeter ME–26B/U chassis, bottom view, showing location of terminal board TB2.

Page 9, paragraph 11. Make the following changes:

Below the heading, delete "(fig. 5)" and substitute:

a. ME–26B/U (fig. 5).

Below the chart add:

b. ME–26A/U (fig. 5.1).

Control or indicator	Function
SELECTOR switch	Turns equipment on and selects mode of operation.
	Switch position — *Action*: OFF — Removes ac power from multimeter.
	— — Sets up multimeter for negative dc voltage measurements.
	+ — Sets up multimeter circuitry for positive dc voltage measurements.
	AC — Sets up multimeter circuitry for ac voltage measurements.
	OHMS — Sets up multimeter circuitry for resistance measurements.
RANGE switch	Selects desired voltage or resistance range.

Control or indicator	Function
ZERO ADJ. controls	Outside control adjusts meter pointer to zero all operations. Inside control adjusts meter pointer to zero for all ac voltage measurements.
OHMS ADJ. control	Adjusts meter pointer for full scale deflection for resistance measurements.
Meter	Indicates voltage or resistance value being measured.
Pilot lamp	Lights when SELECTOR switch is placed in any position other than OFF to indicate power is applied to multimeter.

Page 17, paragraph 25, heading. Delete "(fig. 9)" and substitute: (figs. 9 and 9.1).

Figure 9. Change caption to: Multimeter ME–26BB/U chassis, top view, showing location of rectifier tube, voltage regulator tube, and fuse.

Page 18, paragraph 26. Make the following changes:

Heading. After "Tube" add: in ME–26B/U.

Line 9. After "tubes" add: Multimeter ME–26B/U.

Add paragraph 26.1 after paragraph 26:

26.1. Replacement of Rectifier Tube or Voltage Regulator Tube, Multimeter ME–26A/U

(fig. 9.1)

Replace the tubes in Multimeter ME–26A/U as follows:

a. Remove the rear cover by pressing the spring-release button on the top rear of the cabinet.

b. Remove the retaining screws that hold the main chassis to the cabinet.

c. Remove the chassis by gently sliding it forward out of the cabinet.

d. Push the spring wire tube retainer away from the tube.

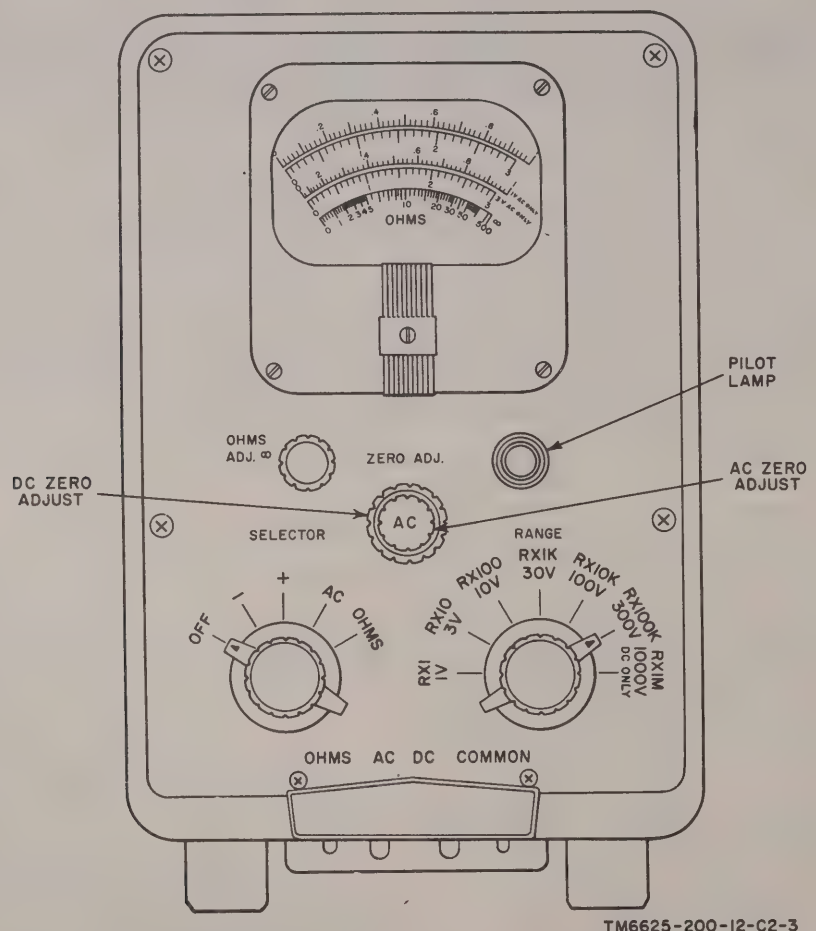

Figure 5.1. (Added) *Multimeter ME–26A/U, operating controls and indicators.*

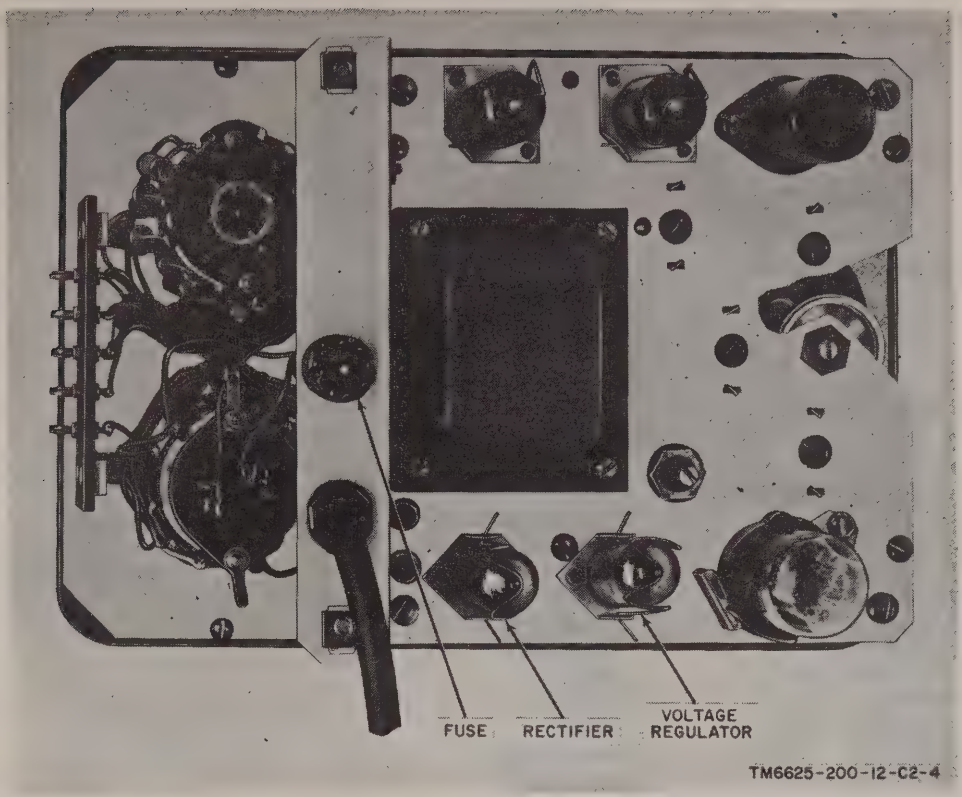

Figure 9.1. (Added) *Multimeter ME–26A/U chassis, rear view, showing location of rectifier tube, voltage regulator tube, and fuse.*

Caution: **Do not rock or rotate a tube when removing it from the tube socket; pull it straight out.**

e. Pull out the suspected rectifier or voltage regulator tube and replace it with a new one. Replace the original tube if the multimeter remains inoperative.

f. Push the spring wire retainer back on the tube.

g. Slide the chassis back into the case and replace the retaining screws.

h. Replace the rear cover.

By Order of the Secretary of the Army:

G. H. DECKER,
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11-587
11-592
11-597
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USAR: None.
For explanation of abbreviations used, see AR 320-50.

U.S. GOVERNMENT PRINTING OFFICE: 1961
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TECHNICAL MANUAL
No. 11-6625-200-12

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., *13 February 1959*

MULTIMETER ME-26B/U

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Scope

a. This manual describes multimeter ME–26B/U, its operation and organizational maintenance. It explains the operation, cleaning and inspection of the equipment, and the replacement of parts available to first and second echelon maintenance.

b. Throughout this manual, multimeter ME–26B/U is referred to as *multimeter.*

2. Forms and Records

a. Unsatisfactory Equipment Reports.

(1) Fill out and forward DA Form 468 (Unsatisfactory Equipment Report), to the Commanding Officer, U.S. Army Signal Equipment Support Agency, Fort Monmouth, N.J., as prescribed in AR 700–38.

(2) Fill out and forward AF TO Form 29 (Unsatisfactory Report), to the Commander, Air Materiel Command, Wright-Patterson Air Force Base, Ohio, as prescribed in AF TO 00–35D–54.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment), as prescribed in AR 700–58 (Army), Navy Shipping Guide, Article 1850–4 (Navy), and AFR 71–4 (Air Force).

c. Preventive Maintenance Forms. Prepare DA Form 11–266 (figs. 7 and 8), Maintenance Check List for Signal Equipment (Test Equipment), in accordance with instructions on the form.

d. Parts List Form. Forward DA Form 2028 (Recommended Changes to DA Technical Manual Parts Lists or Supply Manuals 7, 8, and 9) directly to the Commanding Officer, U.S. Army Signal Equipment Support Agency, Fort Monmouth, N.J., with comments on parts listings.

e. Comments on Manual. Forward all other comments on this publication directly to the Commanding Officer, U.S. Army Signal Publications Agency, Fort Monmouth, N.J.

Section II. DESCRIPTION AND DATA

3. Purpose and Use

(fig. 1)

a. Multimeter ME–26B/U is an electron tube multimeter (voltmeter-ohmmeter) that is used to measure direct current (dc) voltage, resistance, and alternating current (ac) voltage at frequencies from 20 cycles per second (cps) to 700 megacycles (mc) per second.

b. When used as a voltmeter, the high input impedance of the multimeter permits measurements to be made without affecting either the voltage being tested or the operation of the equipment under test.

4. Technical Characteristics

Voltage ranges—

Dc	0 to 1 volt.
	0 to 3 volts.
	0 to 10 volts.
	0 to 30 volts.
	0 to 100 volts.
	0 to 300 volts.
	0 to 1,000 volts.
Ac	0 to 1 volt.
	0 to 3 volts.
	0 to 10 volts.
	0 to 30 volts.
	0 to 100 volts.
	0 to 300 volts.

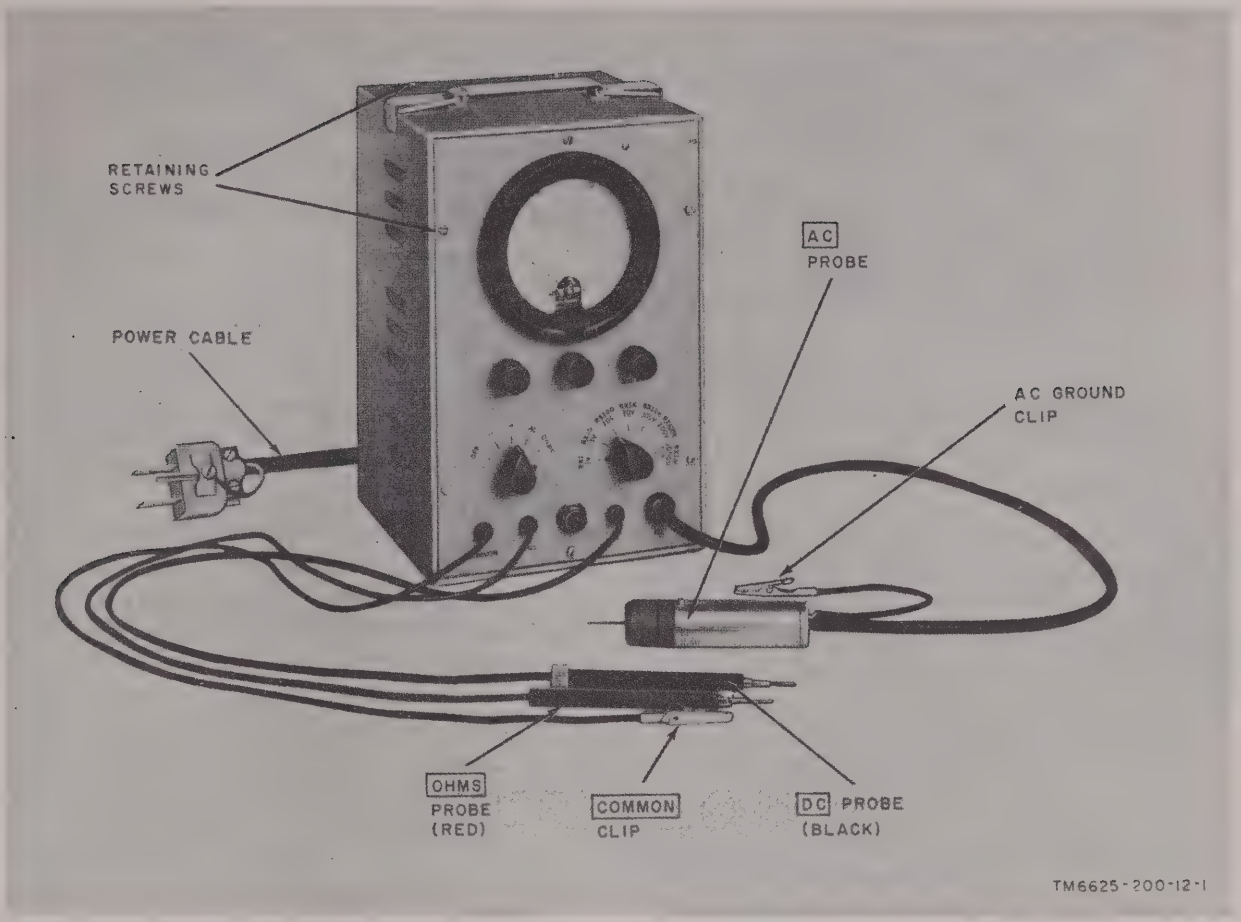

Figure 1. Multimeter ME–26B/U, less running spares.

Voltage ranges—Continued

Resistance ranges	0 to 500 ohms. 0 to 5,000 ohms. 0 to 50,000 ohms. 0 to 500,000 ohms. 0 to 5 megohms. 0 to 50 megohms. 0 to 500 megohms.
Frequency range (ac voltage).	20 cps to 700 mc.
Frequency response (AC probe).	Flat within ±1 db from 20 cps to 700 mc.
Input impedance—	
Dc	122 megohms.
Ac	10 megohms below 100 kc, more than .1 megohm at 100 mc, and .01 megohm at 700 mc.

Voltage ranges—Continued

Accuracy—	
Dc	±3 percent of full scale value on all ranges.
Ac	±3 percent of full scale value on all ranges for sinusoidal input (midfrequency range).

Note. The meter scales are calibrated to indicate .707 of the peak voltage of a sine wave. For a sine wave, the meter indication is the rms value of the sine wave; but for a complex wave, the meter indication is *not* the rms value of the complex wave

Voltage ranges—Continued	
Accuracy—Continued	
Resistance	±10 percent at center scale on RX1 range. ±5 percent at center scale on all other ranges.
Number of tubes	5.
Line-voltage input.	115 or 230 volts, single phase, 50 to 1,000 cps.
Power consumption.	40 watts.

5. Components

The multimeter (fig. 1) is a self-contained unit. Its dimensions are—11 inches high by 7⅛ inches wide by 7¼ inches deep and the weight is 11½ pounds. Running spares are listed in the following chart:

Quantity	Item
1	Electron tube 6X4W.
1	Electron tube OB2.
5	Cartridge fuse, 1.5-amperes (for 115-volt operation).
5	Cartridge fuse, ¾-ampere (for 230-volt operation).
1	Lamp,#47.

6. Description

The multimeter (fig. 1) consists of a chassis (figs. 4 and 9) contained in a metal case. All operating controls (fig. 5), the meter, and the pilot lamp are mounted on the front panel. The test leads (fig. 1) are permanently attached to the chassis and extend through the front panel. The power cable is contained in a storage compartment in the case. A rear cover is provided for access to the power cable, fuse, and storage compartment.

CHAPTER 2

SERVICE UPON RECEIPT OF EQUIPMENT

7. Unpacking

a. Packaging Data. The multimeter is packed for shipment in a corrugated carton; the dimensions of the equipment package are 14½ by 10¾ by 10¼ inches; the weight is 14 pounds and the volume is .93 cubic foot. The running spares are packed in a separate corrugated carton; the dimensions are 3 by 2⅝ by 2⅝ inches.

b. Unpacking Multimeter (fig. 2).

(1) Open the corrugated carton and fold back the top flaps.

(2) Remove the envelope that contains the technical manuals; open the envelope and remove the manuals.

(3) Remove the top pad, rear pad, left and right side pads, and the front frame.

(4) Remove the multimeter from the corrugated carton.

c. Unpacking Running Spares (fig. 3).

(1) Open the corrugated carton and fold back the top flaps.

(2) Remove the running spares from the carton.

(3) Store the running spares in the storage compartment of the multimeter (par. 8*d*).

8. Checking Unpacked Equipment

a. Inspect the equipment for damage. If the equipment has been damaged, refer to paragraph 2.

b. Check the equipment against the packing list. When no packing list accompanies the equipment, use the table of components (par. 5) and/or the packaging data (par. 7) as a general check. If the equipment is incomplete, refer to paragraph 2.

c. Check to be sure that the test leads are firmly attached to the front of the multimeter.

d. Store the running spares in the rear storage cavity and check the power cable as follows:

(1) Remove the rear cover by giving each of the fasteners a ¼ turn.

(2) Check to be sure that the power cable is folded in the storage compartment and that the cable is held firmly by the grommet in the rear of the chassis.

(3) Place the running spares in the storage compartment.

(4) If the multimeter is not to be used immediately, replace the rear cover.

9. Installation

Note. The multimeter is normally wired for operation from a 115-volt ac power source.

To operate the multimeter from a 230-volt ac power source, follow the procedures given in *a* below. To reconnect the multimeter for operation from a 115-volt ac power source, follow the procedures given in *b* below.

a. Connection for 230-Volt Operation.

(1) Remove the rear cover by giving each of the fasteners a ¼ turn.

(2) Remove the retaining screws (fig. 1) from the front panel, the top of the case, and the rear crosspiece.

(3) Remove the chassis by gently sliding it forward out of the case, while lifting the power cable from the groove in the rear crosspiece.

(4) Remove the jumper connecting the first (rear) terminal on the bottom row of terminal board TB2 (fig. 4) and the second (next to rear) terminal on the top row; also remove the jumper connecting the second terminal on the bottom row and the third terminal on the top row.

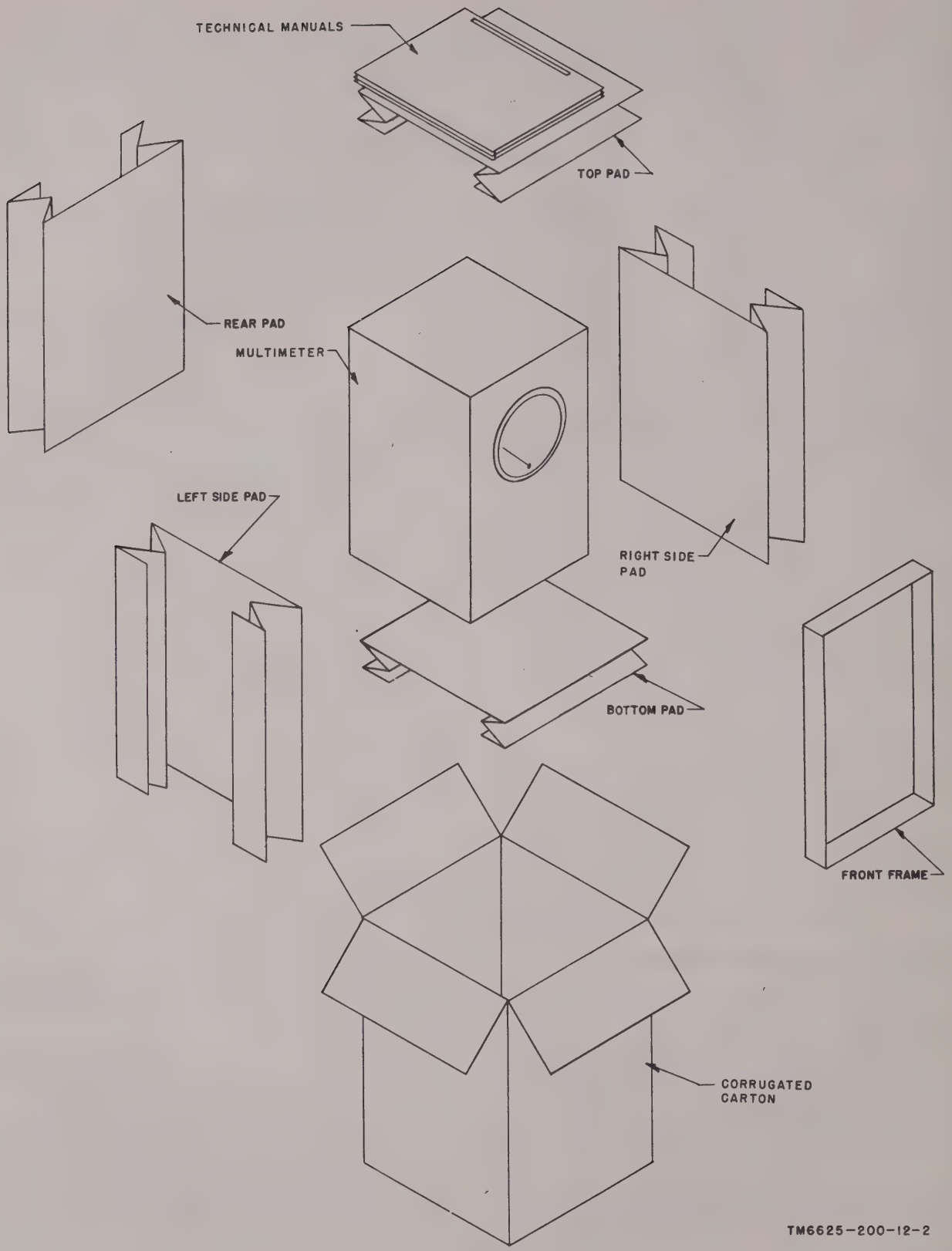

Figure 2. Multimeter, packaging diagram.

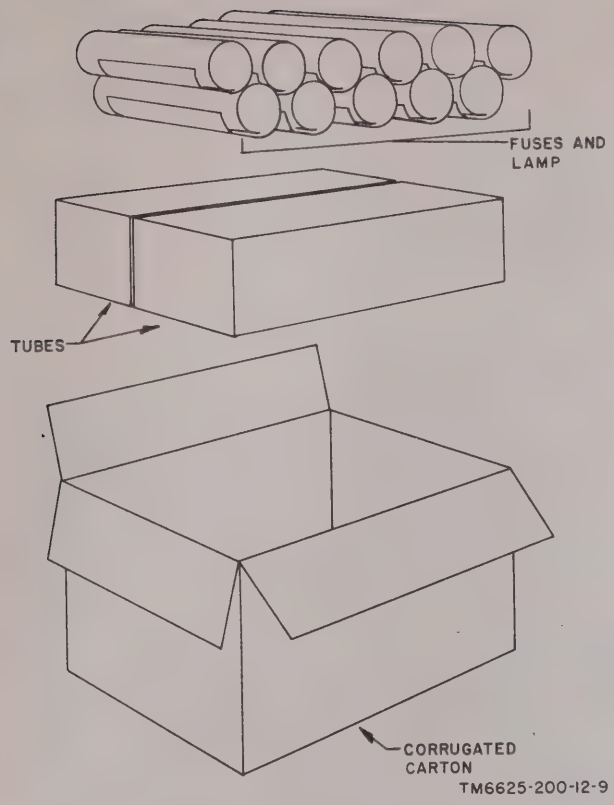

Figure 3. Running spares, packaging diagram.

(5) Connect a jumper from the first to the second terminal on the bottom row of terminal board TB2.
(6) Slide the chassis back into the case and replace the retaining screws.
(7) Replace the 1.5-ampere fuse with a ¾-ampere fuse.
(8) Replace the rear cover.

b. Connection for 115-Volt Operation.

(1) Perform the procedures given in *a* (1) through (3) above.
(2) Remove the jumper connecting the first (rear) and second terminals on the bottom row of terminal board TB2 (fig. 4).
(3) Connect a jumper from the first terminal on the bottom row to the second (next to rear) terminal on the top row.
(4) Connect a jumper from the second terminal on the bottom row to the third terminal on the top row.
(5) Slide the chassis back into the case and replace the retaining screws.
(6) Replace the ¾-ampere fuse with a 1.5-ampere fuse.
(7) Replace the rear cover.

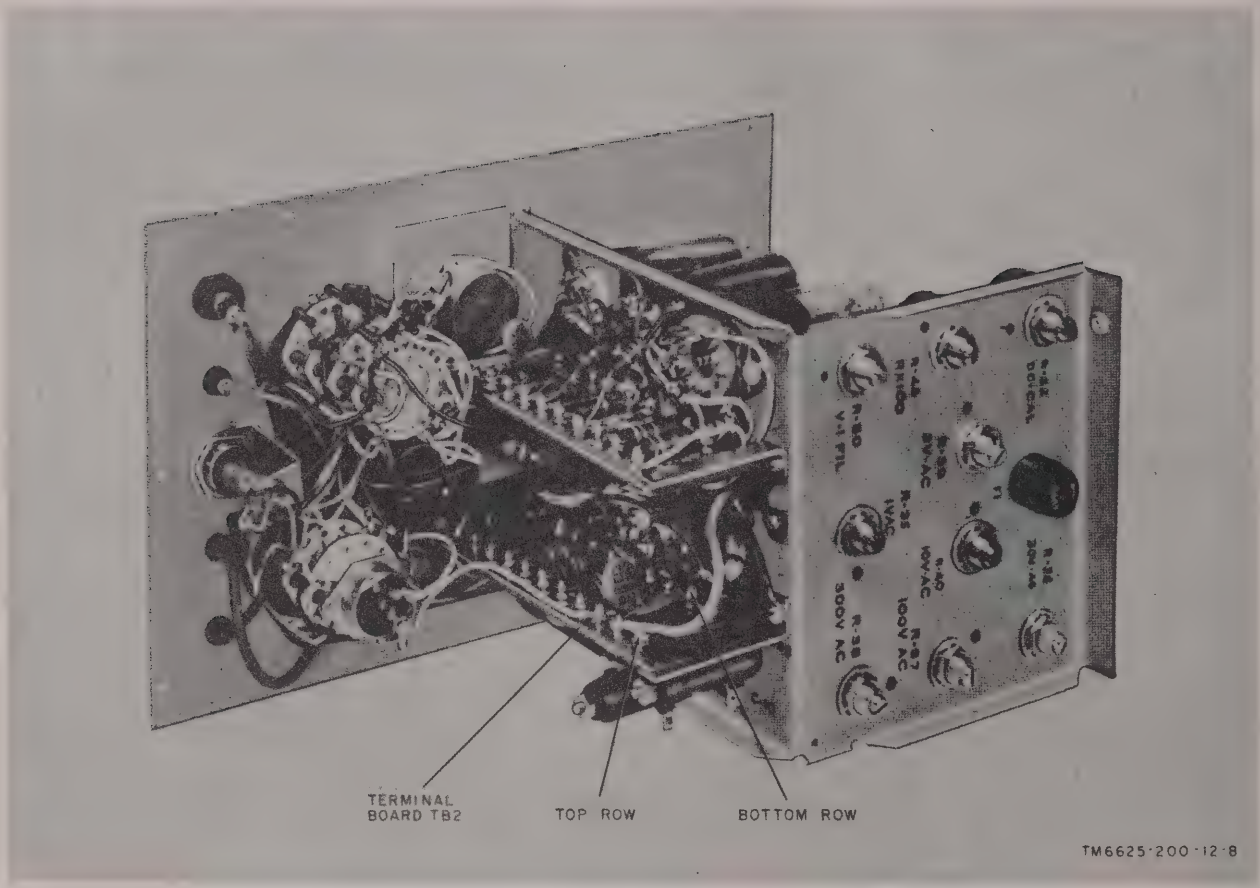

Figure 4. Chassis, bottom view, showing location of terminal board TB2.

CHAPTER 3

OPERATING INSTRUCTIONS

Section I. CONTROLS AND INDICATORS

10. General

a. Improper setting of the RANGE switch may damage the multimeter. When measuring unknown voltage values, start at the highest range (1,000V dc or 300V ac) and reduce the setting of the RANGE switch one step at a time until the meter pointer indicates near the center of the scale.

b. For accurate ac voltage measurements at frequencies of 100 mc and above, unscrew and remove the end of the plastic nose from the AC probe. Connect a blocking capacitor, approximately 50 micromicrofarads ($\mu\mu$f), to the point in the circuit to be measured; contact the other terminal of the capacitor with the exposed AC probe contact point.

11. Operating Controls and Indicators

(fig. 5)

Control or indicator	Function
FUNCTION switch	Turns equipment on and selects mode of operation.
RANGE switch	Selects desired voltage or resistance range.
ZERO ADJ control	Basic zero adjustment; adjusts meter pointer to zero for all types of operation.
AC ZERO control	Adjusts meter pointer to zero for ac voltage measurements.
OHMS ADJ control	Adjusts meter pointer for full scale deflection for resistance measurements.
Meter	Indicates voltage or resistance value being measured.
Pilot lamp	Lights when FUNCTION switch is placed in any position other than OFF to indicate that power is applied to multimeter.

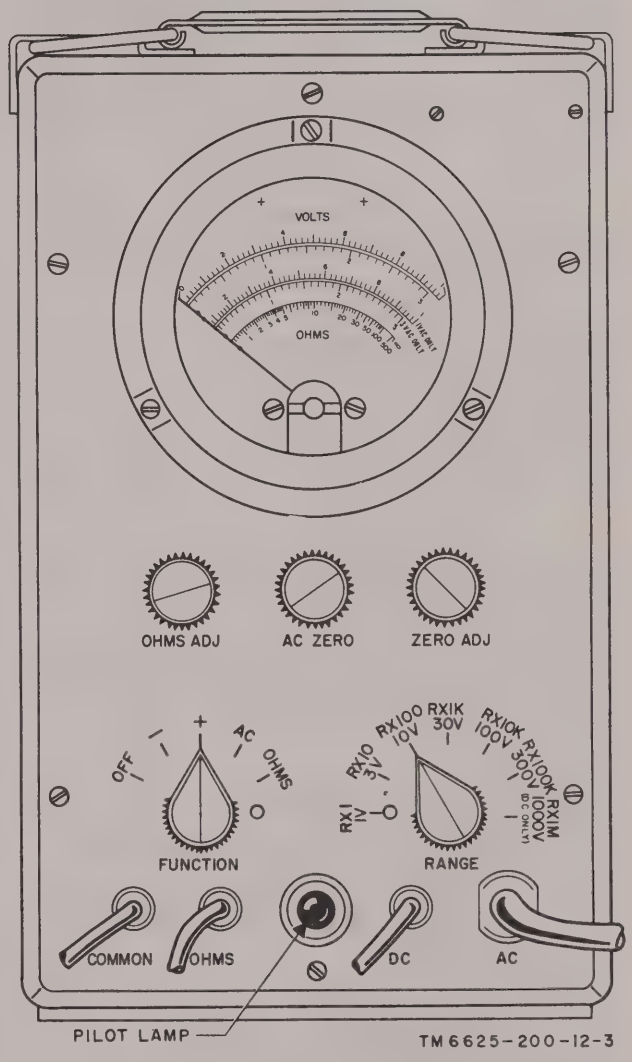

Figure 5. Multimeter ME-26B/U, operating controls and indicators.

Section II. OPERATION

12. Starting Procedure

a. General.

(1) Set the FUNCTION switch (fig. 5) to the OFF position.

(2) Remove the rear cover by giving each of the fasteners a ¼ turn.

(3) Remove the power cable from the storage compartment in the rear of the multimeter.

Caution: **Ascertain the available power source voltage and make sure that the multimeter is internally connected to operate from that source (par. 9). If improperly connected, damage to the equipment or wrong meter readings will result.**

(4) Connect the power cable to the power source. Keep the test leads separated to avoid contact when the multimeter is turned on.

(5) Replace the rear cover allowing the power cable to pass through the slot in the cover.

b. Zero Adjustment.

(1) Set the FUNCTION switch (fig. 5) to the minus (—) position; the pilot lamp will light. Allow 5 minutes for the multimeter to warm up.

(2) Set the RANGE switch to the 1V position.

(3) Connect the COMMON clip (fig. 1) to the tip of the DC probe.

(4) Adjust the ZERO ADJ control (fig. 5) to position the meter pointer to zero.

(5) Disconnect the COMMON clip from the DC probe.

13. Measurement of Dc Voltage

a. Perform the starting procedure (par. 12).

b. Set the FUNCTION switch (fig. 5) to the minus (—) or plus (+) position, depending on the polarity of the voltage to be measured.

c. Set the RANGE switch to the range position that includes the voltage value to be measured and will cause the meter pointer to deflect near the center of the scale.

Caution: **If the voltage to be measured is unknown, set the RANGE switch to the 1,000V position and, if necessary, reduce the setting of the RANGE switch one step at a time until the meter pointer indicates near the center of the scale.**

d. Connect the COMMON clip (fig. 1) to the side of the circuit nearest ground potential.

e. Hold the tip of the DC probe in contact with the point of the circuit to be measured. If the meter pointer deflects to the left (below zero), set the FUNCTION switch (fig. 5) to the minus (—) or plus (+) position, depending on where it had been previously set.

f. Read the indication on the meter.

14. Measurement of Ac Voltage

Note. The meter scales are calibrated to indicate .707 of the peak voltage of an ac sine wave. For a sine wave, the meter indication is the rms value of the sine wave. In the case of a complex wave, the meter indication is not the root mean square (rms) value of the complex wave. For further information on the measurement of complex waves, refer to paragraph 17.

a. Voltage Measurements at Frequencies Below 20 MC.

(1) Perform the starting procedure (par. 12).

(2) Set the FUNCTION switch (fig. 5) to the AC position.

(3) Connect the ac ground clip (fig. 1) to the tip of the AC probe.

(4) Adjust the AC ZERO control (fig. 5) to position the meter pointer on zero.

(5) Disconnect the ac ground clip from the tip of the AC probe.

(6) Set the RANGE switch to the range position that includes the voltage value to be measured and will cause the meter pointer to deflect near the center of the scale.

Caution: **If the voltage value to be measured is unknown, set the RANGE switch to the 300V position and, if necessary, reduce the setting of the RANGE switch one step at a time until the meter indicates near the center of the scale.**

(7) Connect the ac ground clip to the side of the circuit nearest ground potential.

(8) Hold the tip of the AC probe in contact with the point of the circuit to be measured.

(9) Read the indication on the meter.

b. Voltage Measurements at Frequencies Above 20 Mc. To measure voltage at frequencies above

20 mc, follow the procedure given in *a* above, observing the following precautions:

(1) Keep the ac ground clip as close to the point of measurement as possible.

(2) At frequencies of 100 mc and above, unscrew and remove the end of the plastic nose from the AC probe. Connect a blocking capacitor (approximately 50 $\mu\mu$f) to the point in the circuit to be measured. Contact the other terminal of the capacitor with the exposed AC probe contact point.

Caution: **Do not attempt to solder the capacitor to the AC probe contact point; the heat will cause permanent damage to the AC probe.**

15. Preliminary Data for Pulse Measurements

a. General. To measure the positive voltage rise in a pulse, the following characteristics of the pulse generator must be known. This information is used to determine the correction factor (*b* below) for the measured voltage value.

(1) t_1; duration of positive portion of pulse voltage in microseconds.

(2) t_2; duration of negative portion of pulse voltage in microseconds.

(3) PRF; pulse repetition frequency in pulses per second.

(4) R_o; impedance of pulse generator in kilohms.

(5) K; pulse generator form factor (*c* below).

b. Correction Factor. The correction factor for pulse measurements is 1.4 $(1+t_1/t_2+\text{K/PRF})$. The correction factor applies when the PRF is 500 pulses per second or higher and t_1 is 10 microseconds or higher.

c. Pulse Generator Form Factor. The pulse generator form factor (K) is determined from the curves in figure 6. Note that the impedance of the pulse generator (R_o) divided by the duration of the positive portion of the pulse voltage (t_1) is plotted horizontally and the pulse generator form factor (K) is plotted vertically. The running parameters indicate the value of K for any value of R_o/t_1 between 0 and 10.

(1) The curve labeled X1 is used when the value of R_o/t_1 is between 0 and 10. When this curve is used, the scale values for R_o/t_1 and K are read directly.

(2) The curve labeled X10 is used when the value of R_o/t_1 is between 1 and 10. When this curve is used, the scale values for R_o/t_1 and K must be multiplied by 10.

16. Pulse Measurements

Measure the positive voltage rise in a pulse by following the procedure given in *a* below. A numerical example also is given in *b* below.

a. Procedure.

(1) Measure the ac voltage (par. 14).

(2) Multiply the indicated value of the ac voltage by the correction factor (par. 15*b*).

b. Use of Correction Factor.

(1) To determine the pulse voltage value, the measured voltage (*a*(1) above) is multiplied by the correction factor (1.4 $(1+t_1/t_2+\text{K/PRF})$). Assume the following values:

t_1=10 microseconds.
PRF=1,000 pulses per second.
R_o=2 kilohms.
Measured voltage (*a*(1) above)=.8 volt.

(2) To determine t_2, subtract the time duration of the positive portion of the pulse (t_1) from the total time available for the pulse. Note that with a PRF of 1,000 pulses per second, the time interval from the start of one pulse to the start of the next pulse is 1,000 microseconds; t_2= 1,000−10=990 microseconds.

(3) To determine K, divide R_o by t_1; R_o/t_1= 2/10=.2. Applying this value to figure 6 and using the curve labeled X1, K=.55.

(4) Substitute known values in the formula (pulse voltage=measured voltage × correction factor) and solve for the pulse voltage—

Pulse voltage=.8×1.4 (1+10/990+ 55/1000)
=1.1328 volts.

17. Turnover Effect

Note. The following procedure applies only to equipments where the equipment ground is *not* common with the power source ground, directly or through a capacitor.

Complex ac wave forms may have *positive* peak values which are different from the *negative* peak value. If this condition occurs, the multimeter will indicate a certain reading when the AC probe and ac ground clip are applied to the circuit under test. A different reading will be obtained if the AC probe and ac ground clip of the multimeter

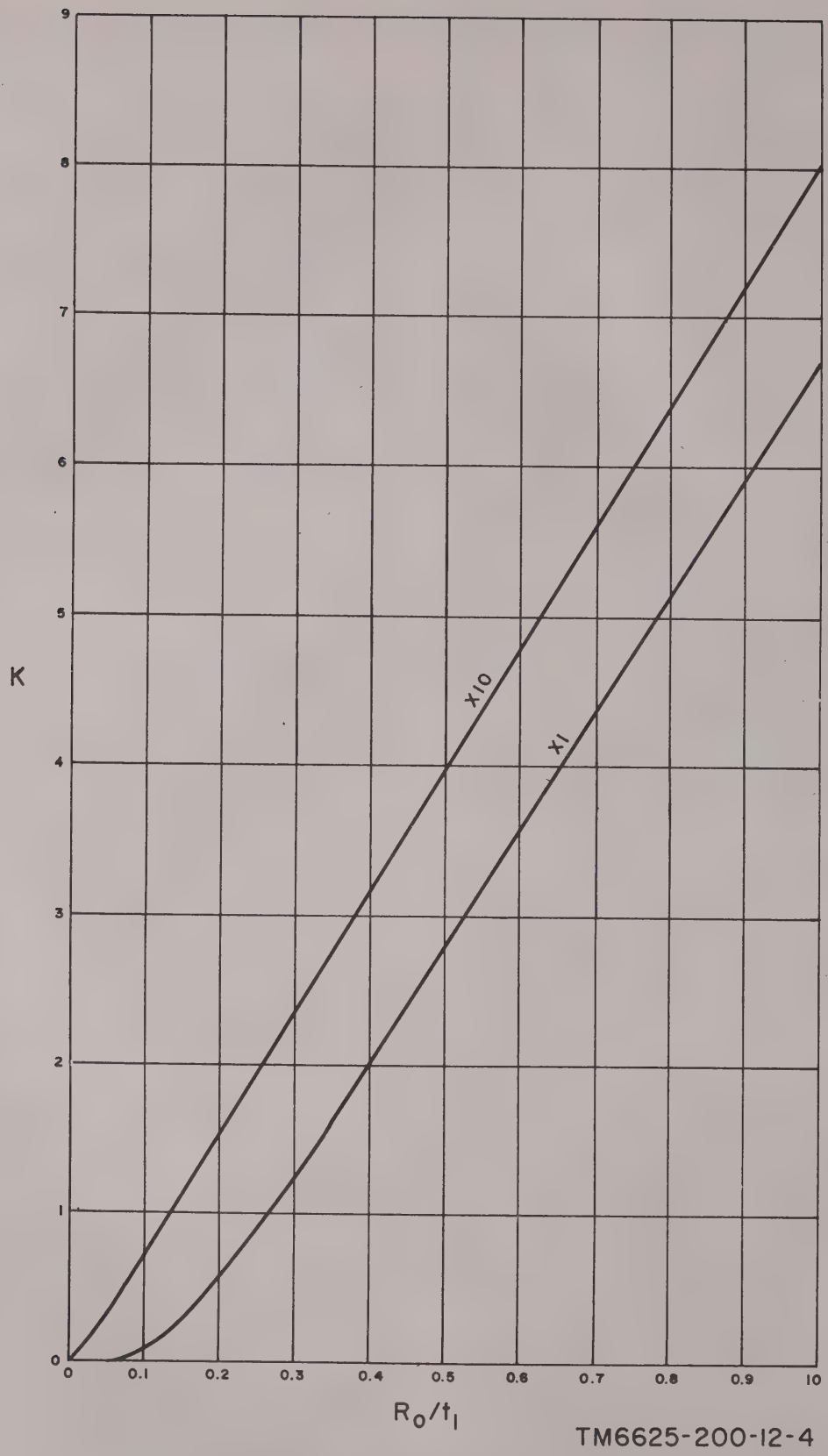

Figure 6. Pulse generator form factor curves.

are transposed. This condition is referred to as *turnover effect.* If this condition is suspected, use the following procedures:

a. Make an ac voltage measurement as described in paragraph 14. Observe and note the reading of the multimeter.

b. Transpose the connections of the multimeter to the circuit under test. Observe and note the reading of the multimeter.

c. Disconnect the multimeter from the circuit under test.

d. The readings obtained in *a* and *b* above may be used to calculate the mean voltage or the actual peak-to-peak voltage of the complex wave. Proceed as follows:

(1) To obtain the mean voltage, add the two readings (*a* and *b* above) and divide the sum by 2. The quotient is the mean voltage value.

(2) To obtain the peak-to-peak voltage, multiply each reading (*a* and *b* above) by 1.414 and add the products. The sum is the peak-to-peak voltage value.

18. Measurement of Resistance

Caution: **Turn off or disconnect the power from the equipment under test when measuring resistance. Damage to the multimeter may result from an external voltage applied to the resistance measurement circuit.**

a. Perform the starting procedure (par. 12).

b. Set the FUNCTION switch (fig. 5) to the OHMS position.

c. Adjust the OHMS ADJ control to position the meter pointer at the last scale division (∞) of the ohms scale.

d. Connect the COMMON clip (fig. 1) and the OHMS probe to opposite ends of the resistance to be measured.

e. Set the RANGE switch (fig. 5) to the range position which will cause the meter pointer to deflect near the center of the scale.

f. Read the indication on the meter and multiply by the factor indicated by the setting of the RANGE switch.

19. Stopping Procedure

(fig.5)

a. Set the FUNCTION switch to the OFF position; the pilot lamp extinguishes.

b. Disconnect the power cable from the power source.

c. If there is no immediate need for the multimeter, remove the rear cover; coil the power cable and place it in the storage compartment; replace the rear cover.

CHAPTER 4

MAINTENANCE INSTRUCTIONS

20. Scope of Organizational Maintenance

a. Organizational maintenance for multimeter ME–26B/U consists of the following:

(1) Preventive maintenance (par. 22).
(2) Visual inspection (par. 23).
(3) Replacement of pilot lamp (par. 24).
(4) Replacement of fuse (par. 25).
(5) Replacement of rectifier tube or voltage regulator tube (par. 26).

b. If the multimeter remains inoperative after performing the checks in *a* above, higher echelon repair is required. Note on the repair tag what corrective measures were taken and how the equipment performed at the time of failure.

21. Tools Required for Maintenance

a. A screw driver is required to remove the chassis from the case and to replace the connector on the power cable.

b. A soldering iron is required to rewire the ac input connections to the power transformer.

22. Preventive Maintenance

a. DA Form 11–266. DA Form 11–266 (figs. 7 and 8) is a preventive maintenance check list to be used by organizational maintenance personnel. Items not applicable to the multimeter are lined out in the figure. References in the ITEM block in figure 8 are to paragraphs that contain additional maintenance information pertinent to the particular item. Instructions for use of the form appear on the form.

b. Items. The information shown in this subparagraph supplements DA Form 11–266. The item numbers correspond to the ITEM numbers on the form.

Item	Maintenance procedure
1	Use a clean cloth to remove dust, dirt, moisture, and grease from the front panel and case. If necessary, wet the cloth with cleaning compound (Federal stock No. 7930–395–9542) and then wipe the parts with a clean, dry cloth. ***Warning:*** **Cleaning Compound is flammable and its fumes are toxic. Do not use near a flame; provide adequate ventilation.**
3	All control knobs should work smoothly, be tight on the shafts, and should not bind. Tighten all loose knobs and be sure that the knobs do not rub against the front panel.
5	Inspect the test leads for obvious defects. Be sure that the test leads are firmly secured by the strain relief grommets where they pass through the front panel. Remove the rear cover and inspect the power cable.
16	Inspect the connector on the power cable; if the connector is obviously defective, replace it.

23. Visual Inspection

When the equipment fails to perform properly, turn off the power and check all the items listed below. Inspection will save repair time and may also avoid further damage. *Do not check any item while the power is on.*

a. Wrong settings of controls.

b. Power cable or test leads disconnected or poorly connected.

c. Burned out fuse (usually indicates some other fault).

d. Test lead strain relief grommets.

e. Meter.

f. Rectifier tube and voltage regulator tube.

MAINTENANCE CHECK LIST FOR SIGNAL EQUIPMENT
TEST EQUIPMENT
(AR 750-625)

EQUIPMENT NOMENCLATURE

MULTIMETER ME-26B/U

EQUIPMENT SERIAL NUMBER

123

INSTRUCTIONS

This form may be used for a period of one month by using the correct dates and weeks of the month. It is to be used as a Preventive Maintenance check list for Signal equipment in actual use, or for a check on equipment prior to issue.

1. For detailed Preventive Maintenance instructions see:
   a. The Technical Manual *(in TM 11 series)* for the equipment. *(See DA Pamphlet Number 310-4)*
   b. The Supply Bulletin *(SB 11-100 series)* for the equipment. *(See DA Pamphlet Number 310-4)*
   c. The Department of the Army Lubrication Order. *(See DA Pamphlet Number 310-4)*

2. The following action will be taken by either the Communications Officer/ Chief for 1st echelon, or the Inspector for higher echelon
   a. Enter Equipment Nomenclature and Serial Number.
   b. Strike out items that do not apply to the equipment.

3. Operator/Inspector will enter in the columns entitled CONDITION, on the proper line, a notation regarding the condition, using symbols specified under LEGEND.

4. After operator completes each daily inspection he will initial over the appropriate dates under "Daily Condition for Month", then return form to his supervisor.

FOLD

TYPE OF INSPECTION

OPER-ATOR	2/3 ECH-ELON	DATE	SIGNATURE
✓		2 NOV 58	J. Jones
	✓	7 NOV 58	R. D. White

U. S. GOVERNMENT PRINTING OFFICE 1957 O—427138

4

DA FORM 1 MAY 57 11-266

TM6625-200-12-5

Figure 7. DA Form 11–266, pages 1 and 4.

LEGEND for marking conditions:
Satisfactory, ✓
Adjustment, Repair or Replacement required, X.
Defect corrected, (X).

DAILY CONDITION FOR MONTH OF NOVEMBER 1958

NO.	DAILY ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	2D 3D ECHELON
		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
1.	CLEAN DIRT AND MOISTURE FROM EXPOSED SURFACES OF HOUSINGS, CASES, CABINETS, CONTROL PANELS, ~~INTER-CONNECTING~~ PLUGS, CABLES, ~~HEADSETS~~, METER WINDOWS, ETC. PAR. 22	✓	✓	✓	✓	✓	✓	✓										✓
2.	INSPECT FOR LOOSENESS OF EXTERIOR ITEMS SUCH AS SWITCHES, KNOBS, JACKS, CONNECTORS AND PILOT LIGHTS.	✓	✓	✓	✓	✓	✓	✓										✓
3.	INSPECT CONTROLS FOR BINDING, SCRAPING. TAP CONTROLS LIGHTLY FOR CUT-OUT DUE TO LOOSE CONTACTS. PAR. 22	✓	✓	✓	✓	✓	✓	✓										✓
4.	DURING OPERATION BE ALERT FOR ANY UNUSUAL PERFORMANCE OR CONDITION.	✓	✓	✓	✓	✓	✓	✓										✓

WEEKLY	CONDITION EACH WEEK 1ST	2D	3D	4TH	5TH	2D 3D ECH
5. INSPECT CORDS, CABLES, WIRE ~~AND SHOCK-MOUNTS~~ FOR BREAKS, CUTS, KINKS, DETERIORATION, STRAIN AND FRAYING. PAR. 22	X					⊗
6. ~~INSPECT CANVAS AND LEATHER ITEMS FOR FUNGUS, FRAYING, TEARS, BROKEN ZIPPERS AND SNAP FASTENERS.~~						
7. HAND CHECK FOR LOOSENESS OF EXTERIOR ITEMS SUCH AS HANDLES, LATCHES, HINGES.	✓					✓
8. ~~INSPECT FOR LUBRICATION IN ACCORDANCE WITH APPLICABLE DA LUBRICATION ORDER.~~						
9. ~~INSPECT DRY BATTERIES FOR DIRT, LOOSE TERMINALS AND LEAKAGE.~~						
10. INSPECT EXPOSED METAL SURFACES FOR RUST AND CORROSION.	✓					✓
11. INSPECT METERS FOR DAMAGED GLASS AND CASES.	✓					✓

ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS	CONDITION
12. INSPECT SEATING OF READILY ACCESSIBLE ITEMS OF A PLUCK-OUT NATURE: ~~CRYSTALS~~, FUSES, CONNECTORS, ~~PLUG-IN COILS~~, LAMPS, ETC. DO NOT REMOVE, ROCK OR TWIST TO INSPECT. USE ONLY A DIRECT PRESSURE TO INSURE THE ITEM IS FULLY SEATED.	X
13. ~~INSPECT FOR CLEANLINESS AND TIGHTNESS OF SUCH ITEMS AS SHOCK MOUNTS, ANTENNA, ANTENNA MOUNTS AND WAVE GUIDES.~~	
14. ~~INSPECT RELAY AND CIRCUIT BREAKER ASSEMBLIES FOR DIRT, CORROSION, WORN OR BURNED CONTACTS.~~	

ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS	CONDITION
15. INSPECT RESISTORS, BUSHINGS, INSULATORS FOR CRACKS, CHIPPING, BLISTERING, DISCOLORATION AND MOISTURE.	✓
16. INSPECT JACKS AND CONNECTORS FOR SNUG FIT AND GOOD CONTACTS. PAR. 22	✓
17. ~~INSPECT VARIABLE CAPACITORS FOR DIRT AND MOISTURE.~~	
18. ~~INSPECT AIR FILTERS FOR CLEANLINESS.~~	
19. ~~INSPECT SCREWTYPE TERMINALS OF TRANSFORMERS, FIXED CAPACITORS, RESISTORS, CHOKES, POTENTIOMETERS AND RHEOSTATS FOR CORROSION, DIRT AND LOOSE CONTACTS.~~	
20. CLEAN AND TIGHTEN SWITCHES, ~~BLOWERS, RELAY CASES;~~ CLEAN INTERIOR OF CHASSIS AND CABINETS.	✓
21. ~~INSPECT GENERATORS, MOTORS AND DYNAMOTORS FOR BRUSH WEAR, SPRING TENSION, ARCING AND COMMUTATOR WEAR.~~	
22. ~~INSPECT TERMINAL BLOCKS FOR LOOSE CONNECTIONS, CRACKS AND BREAKS.~~	
23. INSPECT GASKETS AND BUSHINGS FOR WEAR AND DAMAGE.	✓
24. ~~INSPECT CATHODE RAY TUBES FOR BURNED SCREEN SPOTS.~~	
25. ~~BEFORE STORING OR SHIPPING REMOVE ALL BATTERIES.~~	

IF DEFICIENCIES NOTED ARE NOT CORRECTED DURING THE INSPECTION, INDICATE ACTION TAKEN FOR CORRECTION. *(Continue on page 4, if more space is needed)*

ITEM 12 - BROKEN TUBE SOCKET X02
REPORTED TO 4TH ECHELON
FOR REPAIR.

2 3

TM6625-200-12-6

Figure 8. DA Form 11–266, pages 2 and 3.

24. Replacement of Pilot Lamp

(fig. 5)

When the multimeter operates normally but the pilot lamp does not light, the pilot lamp is probably defective. Replace the pilot lamp with one known to be good. If the pilot lamp still does not light, higher echelon repair is required. Replace the pilot lamp as follows:

a. Unscrew (counterclockwise) the glass indicator jewel and remove it to expose the lamp.

b. Press in on the lamp and turn it counterclockwise to unlock.

c. Remove the defective lamp and replace it with a new one. Push the lamp in and twist it clockwise to lock.

d. Screw (clockwise) the glass indicator jewel onto the lamp holder.

25. Replacement of Fuse

(fig. 9)

If the multimeter is completely inoperative (pilot lamp does not light and meter pointer does not deflect), the fuse is probably defective. Replace the defective fuse with a new one. If the new fuse blows when power is applied, check the rectifier and voltage regulator tubes (par. 26). If the fuse still blows, higher echelon repair is required. Replace the fuse as follows:

a. Remove the rear cover by giving each of the fasteners a ¼ turn.

b. Turn the fuse holder cap counterclockwise to unlock.

c. Pull out the fuse holder cap with the defective fuse. Remove the defective fuse and replace it with a new one.

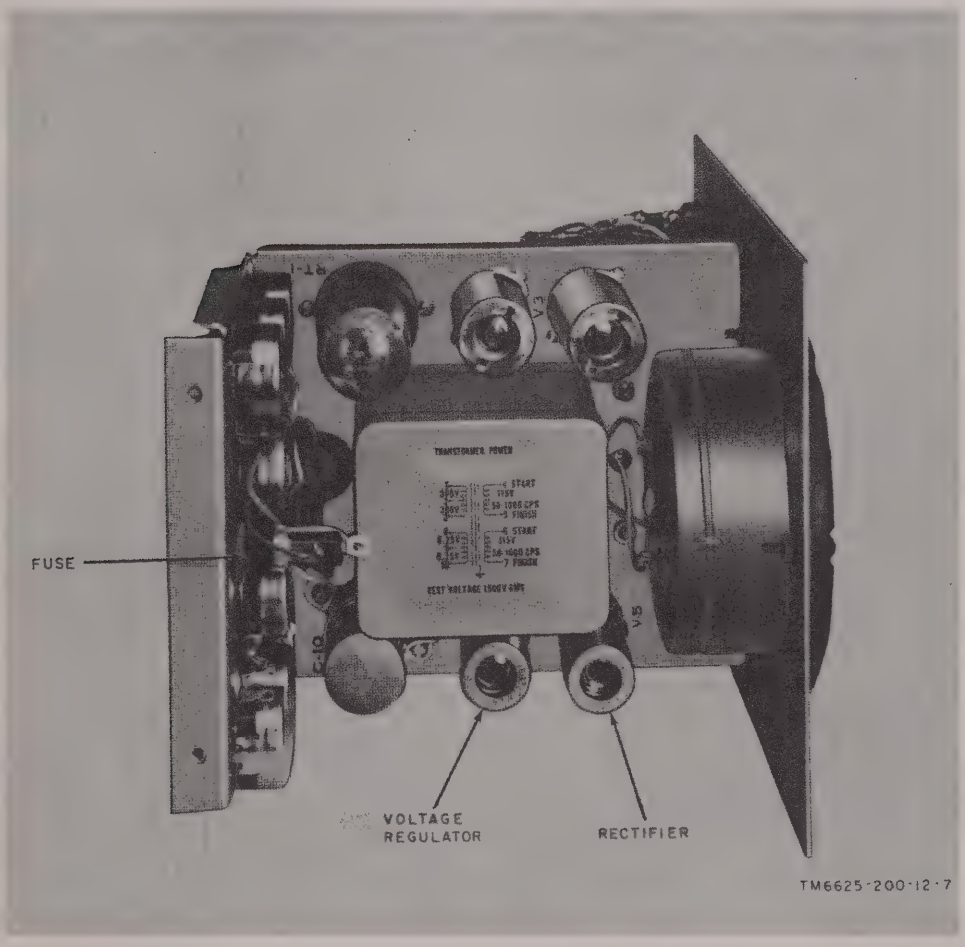

Figure 9. Chassis, top view, showing location of rectifier tube, voltage regulator tube, and fuse.

d. Insert the fuse holder cap, with the new fuse, into the fuse holder. Press in on the fuse holder cap and turn it clockwise to lock.

e. Replace the rear cover.

26. Replacement of Rectifier Tube or Voltage Regulator Tube

(fig. 9)

If the pilot lamp lights but there is no deflection of the meter pointer, or if the meter indications are consistently low, the trouble may be a defective rectifier tube or voltage regulator tube. Replace the rectifier tube and voltage regulator tube, one at a time, with tubes known to be good. If the new tube does not correct the trouble, replace the original tube and turn the multimeter in for higher echelon repair. Replace the tubes as follows:

a. Remove the rear cover.

b. Remove the retaining screws (fig. 1) from the front panel, the top of the case, and the rear crosspiece.

c. Remove the chassis by gently sliding it forward while lifting the power cable from the groove in the rear crosspiece.

d. Press down on the tube shield and turn it counterclockwise to unlock; remove the tube shield.

e. Pull out and replace a suspected rectifier or voltage regulator tube with a new one. Replace the original tube if the multimeter remains inoperative.

Caution: **Do not rock or rotate a tube when removing it from the tube socket; pull it straight out.**

f. Place the tube shield over the tube; press down and turn the tube shield clockwise to lock.

g. Slide the chassis back into the case and replace the retaining screws.

h. Replace the rear cover.

CHAPTER 5

SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

27. Disassembly of Equipment

a. Remove the power cable from the power source.

b. Remove the rear cover; coil the power cable and place it in the storage compartment; replace the rear cover.

c. Coil the test leads and secure them with tape, string, or rubber bands.

28. Repackaging for Shipment or Limited Storage

The exact procedure for repackaging depends on the material available and the conditions under which the equipment is to be shipped or stored. Adapt the procedure outlined below whenever circumstances permit. The information concerning the original packaging (par. 7) will also be helpful.

a. Material Requirements. The following materials are required for packaging multimeter ME–26B/U. For stock numbers of materials, consult SB 38–100, Preservation, Packaging and Packing Materials, Supplies, and Equipment Used by the Army.

Material	Quantity
Waterproof paper	9 sq ft.
Waterproof tape	20 ft.
Cotton twine	20 ft.
Corrugated cardboard	20 sq ft.
Gummed tape	20 ft.
Filler material	5 lb.

b. Packaging.

(1) Cushion the multimeter with pads of filler material on all sides. Place the cushioned unit within a wrap of corrugated cardboard and secure the ends with gummed tape.

(2) Package each spare tube, spare lamp, and spare fuse in a wrap of corrugated cardboard; secure the ends of the packages with gummed tape. Consolidate all the spare parts within a single wrap of corrugated cardboard; secure the ends of the package with gummed tape.

(3) Package the technical manuals within a close-fitting bag fabricated of waterproof paper. Seal the bag with waterproof tape.

(4) Use corrugated cardboard and form a carton large enough to hold the packaged multimeter, spare parts, and technical manuals. Line the carton with waterproof paper. Place the packages in the carton and fill all voids with filler material. Seal the waterproof carton liner with waterproof tape; seal the carton with gummed tape.

Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

29. Authority for Demolition

The demolition procedures given in paragraph 30 will be used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accomplished only upon the order of the commander.

30. Methods of Destruction

The size and construction of the multimeter particularly lends itself to destruction by smashing.

a. Use sledges, axes, hammers, crowbars, or any heavy tool available to smash the multimeter; if time permits, remove the chassis from the case before smashing.

b. Cut the power cable and test leads.

c. Burn technical manuals.

d. Bury or scatter the destroyed parts in slit trenches, foxholes, or throw them into streams

APPENDIX

MAINTENANCE ALLOCATION CHART FOR MULTIMETER ME-26B/U

Section I. INTRODUCTION

1. General

a. The maintenance allocation chart assigns maintenance functions and repair operations to be performed by the lowest appropriate maintenance echelon. It also specifies the facilities authorized at each echelon to perform the assigned maintenance function.

b. The column headings of section II, Allocation of Maintenance Functions, are defined as follows:

(1) *Part or component.* Only the nomenclature or standard item name is annotated in this column. Additional descriptive data is included only where clarification is necessary to identify the part. Components and parts comprising a major end item are listed alphabetically. Assemblies and subassemblies are in alphabetical sequence with their components listed alphabetically immediately below the assembly listing.

(2) *Maintenance function.* This column indicates the various maintenance functions allocated to the echelon capable of performing the operation. These are defined as follows:

(*a*) *Service.* To clean, to preserve, and to replenish fuel and lubricants.

(*b*) *Adjust.* To regulate periodically to prevent malfunction.

(*c*) *Inspect.* To verify serviceability and to detect incipient electrical or mechanical failure by visual examination.

(*d*) *Test.* To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages, meters, etc.

(*e*) *Replace.* To substitute serviceable assemblies, subassemblies, and parts for unserviceable components.

(*f*) *Repair.* To restore to a serviceable condition by replacing unserviceable parts or by any other action required, utilizing tools, equipment, and skills available, to include welding, grinding, riveting, straightening, adjusting, etc.

(*g*) *Calibrate.* To determine, check, or rectify the graduation of an instrument, weapon, or weapons system, or components of a weapons system.

(*h*) *Rebuild.* To restore to a condition comparable to new, by disassembling the item to determine the condition of its component parts and reassembling it, using serviceable, rebuilt, or new assemblies, subassemblies, and parts.

(3) *1st, 2nd, 3rd, 4th, and 5th echelon.* The symbol X in column 3, 4, 5, 6, or 7, indicates that the echelon designated *and* higher echelons are responsible for the indicated maintenance function. Repair parts may not necessarily be stocked at the echelon indicated; refer to the applicable repair parts and special tools list.

(4) *Tools required.* The numbers in this column indicate the tool and test equipments required to perform the related maintenance function. These numbers are identified in section III, allocation of tools for maintenance functions.

(5) *Remarks.* This column contains any notations necessary to clarify the data in the preceding columns.

c. The column headings of section III, allocation of tools for maintenance functions, are defined as follows:

(1) *Tools required for maintenance functions.* This column lists tools and test equipments required to perform the maintenance functions.

(2) *1st, 2nd, 3rd, 4th, and 5th echelon.* A dagger symbol (†) placed in column 5 or 6 indicates the echelon to which the tool or test equipment is allocated.

(3) *Tool code.* The numbers in this column are code numbers used in section II to refer to the indicated item.

(4) Remarks. (Not used.)

2. Maintenance by Using Organizations

When this equipment is used by signal service organizations organic to theater headquarters or communication zones to provide theater communications, those maintenance functions allocated up to and including fourth echelon are authorized to the organization operating this equipment.

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SECTION II.—*Allocation of Maintenance Functions*

(1) PART OR COMPONENT	(2) MAINTENANCE FUNCTION	(3) 1ST ECH.	(4) 2ND ECH.	(5) 3RD ECH.	(6) 4TH ECH.	(7) 5TH ECH.	(8) TOOLS REQUIRED	(9) REMARKS
MULTIMETER ME-26B/U								
	repair				X		6	
	rebuild					X	6	
	service		X					
	inspect		X					
	test				X	X	2, 4, 5	
	calibrate				X	X	1, 3	
	adjust				X	X	6	
BRACKETS, ANGLE	replace				X			Fabricate if required
BUSHINGS, STRAIN RELIEF	replace			X				
CABLE ASSEMBLY, POWER, ELECTRICAL (AC Line)	repair			X				
CABLE, POWER, ELECTRICAL	replace			X				
CONNECTOR, PLUG, ELECTRICAL	replace		X					
CAPACITORS	replace				X			
CASE, TEST SET	repair				X			
CASE, TEST SET (Less Cover)	replace					X		Fabricate if required
HANDLE, TEST SET CASE	replace				X			Fabricate if required
LOCKSPRING, TURNOCK FASTENER	replace				X			
NUT, PLAIN, CLINCH	replace				X			
COVER, TEST SET CASE	replace				X			Fabricate if required
EYELET, TURNLOCK FASTENER	replace				X			
STUD, TURNLOCK FASTENER	replace				X			
CLAMP, LOOP	replace			X				
ELECTRON TUBES (V1, V2, V3)	replace				X			
ELECTRON TUBES (V4, V5)	replace	X						
FUSES, CARTRIDGE	replace	X						
FUSEHOLDER	replace			X				
CAP, ELECTRICAL (Fuseholder)	replace		X					
GROMMETS, RUBBER	replace			X				
KNOBS	replace		X					
LAMP, INCANDESCENT	replace	X						
LEAD, TEST (AC Probe Assembly)	repair				X			
CABLE, RADIO FREQUENCY	replace				X			
CAPACITORS (C1, C2)	replace				X			
CLIP, ALLIGATOR	replace			X				
ELECTRON TUBE (V1)	replace				X			
LEAD, TEST (Less Electron Tube V1)	replace				X			

SECTION II.—*Allocation of Maintenance Functions.*—Continued

(1) PART OR COMPONENT	(2) MAINTENANCE FUNCTION	(3) 1ST ECH.	(4) 2ND ECH.	(5) 3RD ECH.	(6) 4TH ECH.	(7) 5TH ECH.	(8) TOOLS REQUIRED	(9) REMARKS
ME-26B/U (continued)								
RESISTOR, FIXED, COMPOSITION (R2)	replace				X			
LEAD, TEST (Common ground lead)	repair			X				
CLIP, ALLIGATOR	replace			X				
WIRE, ELECTRICAL	replace			X				
LEAD, TEST (DC Probe assembly)	repair				X			
CABLE, RADIO FREQUENCY	replace			X				
PROBE, TEST	replace			X				
RESISTOR, FIXED, COMPOSITION (R1)	replace				X			
LEAD, TEST (Ohms Probe assembly)	repair			X				
PROBE, TEST	replace			X				
WIRE, ELECTRICAL	replace			X				
LIGHT, INDICATOR	replace			X				
MULTIMETER, REPLACEMENT	replace repair				X X			
NUT, PLAIN, CLINCH	replace				X			
NUTS, PLAIN, HEXAGON (Common hardware)	replace			X				Available in Maintenance Equipment ME-9 and Hardware Kit MK-41/U
RECTIFIER, METALLIC	replace				X			
RESISTORS (includes RT1)	replace				X			
SCREWS, MACHINE (Common hardware)	replace			X				Available in Maintenance Equipment ME-9 and Hardware Kit MK-41/U
SHIELDS, ELECTRON TUBE	replace		X					
SOCKETS, ELECTRON TUBE	replace				X			
SWITCHES, ROTARY	replace				X			
TERMINALS, LUG	replace				X			Available in Maintenance Equipment ME-9
TERMINAL BOARDS	replace				X			Fabricate if required. Material available in Maintenance Equipment ME-9
TRANSFORMER	replace				X			
WASHERS, FLAT (Common hardware)	replace			X				Available in Maintenance Equipment ME-9 and Hardware Kit MK-41/U
WASHERS, LOCK (Common hardware)	replace			X				Available in Maintenance Equipment ME-9 and Hardware Kit MK-41/U
WASHER, NONMETALLIC	replace				X			Fabricate if required

SECTION III.—*Allocation of Tools for Maintenance Functions*

(1) TOOLS REQUIRED FOR MAINTENANCE FUNCTIONS	(2) 1ST ECH.	(3) 2ND ECH.	(4) 3RD ECH.	(5) 4TH ECH.	(6) 5TH ECH.	(7) TOOL CODE	(8) REMARKS
ME-26B/U							
METER TEST SET TS-682/GSM-1				†	†	1	
MULTIMETER AN/URM-105				†	†	2	
RESISTOR DECADE ZM-16/U				†	†	3	
TEST SET, ELECTRON TUBE TV-2/U					†	4	
TEST SET, ELECTRON TUBE TV-7/U				†		5	
TOOL EQUIPMENT TK-21/G				†	†	6	

[AG 413.44 (30 Jan 59)]

By Order of *Wilber M. Brucker*, Secretary of the Army:

MAXWELL D. TAYLOR,
General, United States Army,
Chief of Staff.

Official:

R. V. LEE,
Major General, United States Army,
The Adjutant General.

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Fld Comd, AFSWP (5)
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Sector Comd, USA Corps (Res) (1)
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Units organized under following TOE's:
11–7 (2)
11–16 (2)
11–57 (2)
11–500 (AA–AE) (2)
11–557 (2)
11–587 (2)
11–592 (2)
11–597 (2)

NG: State AG (3); units—same as Active Army except allowance is one copy to each unit.
USAR: None.
For explanation of abbreviations used, see AR 320–50.

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